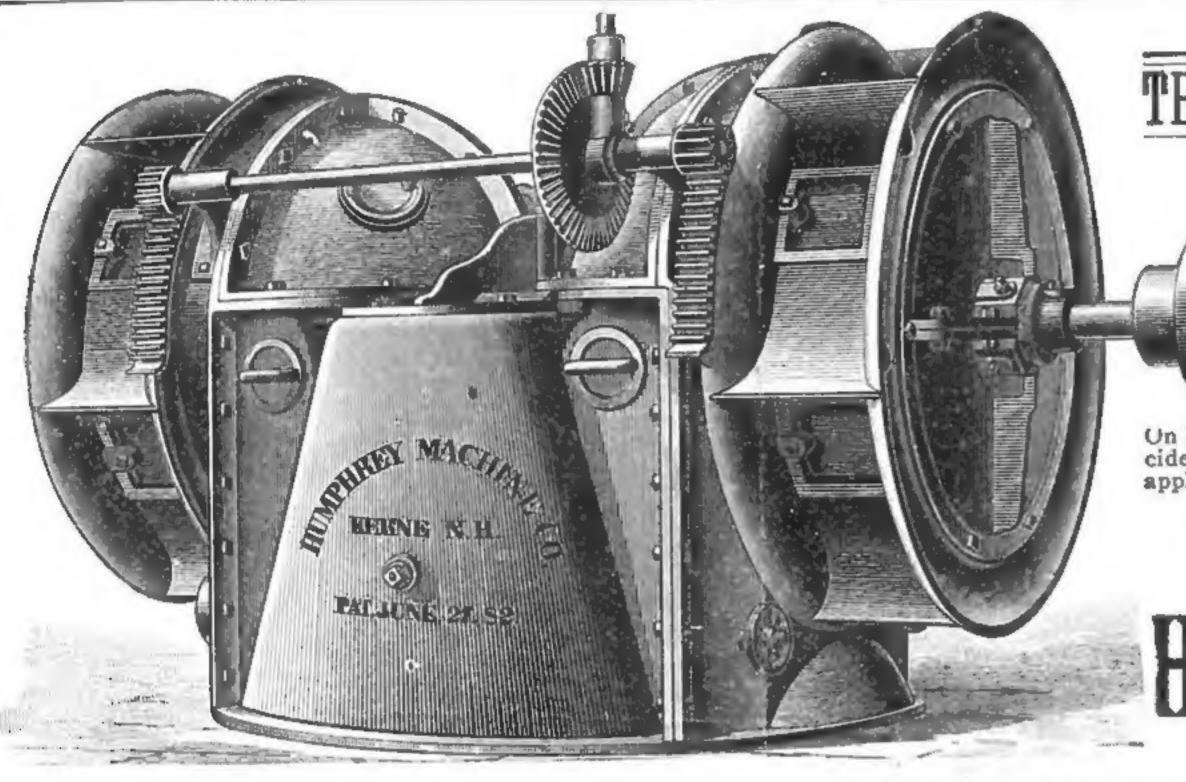


PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 18.

BUFFALO, N. Y., DECEMBER 29, 1890

\$1.50 PER YEAR.

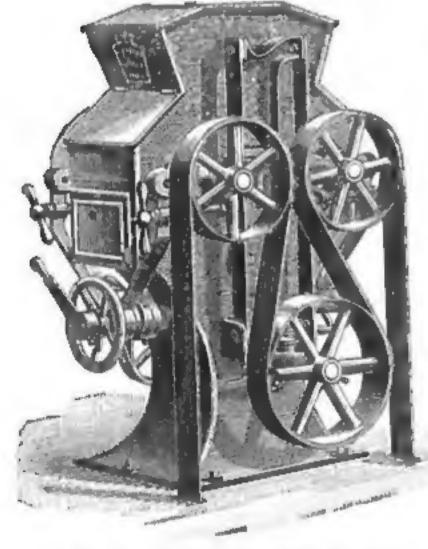


THE X-LO-G-RIMPROVED CIRCUMSHOT Water Wheel

On Horizontal Shaft. Saves cost, annoyance and loss of power incident to use of gears. Affords more available power from water applied at full or part gate than any other. The cheapest, best and most desirable Water Wheel yet produced.

HumphreyMachineCo

KPENE.



"Keystone" 4-Roller Wheat Mill.

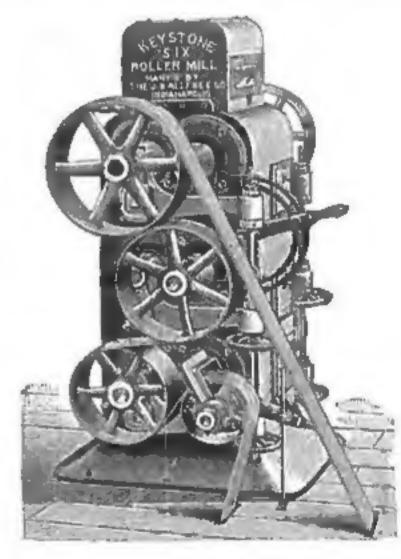
THE BEST MILL THAT HAS EVER BEEN BUILT IN GREENE COUNTY, PA.

THE J. B. ALLFREE Co.

GENTLEMEN: After running my 25-bbl. mill over one month I feel it my duty, and in justice to you, to state that I am more than pleased with the mill you built for me; it started like a clock from the word "go." Before making my contract I made careful inspection of the different systems and machinery in the best mills, and now feel that I have made no mistake in awarding you the contract I am well satisfied that your guarantees have been more than fulfilled as regards percentages, yield and capacity. I undoubtedly have the best mill that has ever been built in Greene County, Pa., which, together with the superior quality of wheat, enables us to turn out grades of flour that are unequaled, and reports which I have received from expert bakers fully substantiate this statement. My clean-up is equal to any 25-bbl. mill in the State. I will say that "The J. B. Alifree Rolls and Flour Dressers" can not bbl. mill in the State. I will say that "The J. B. Alifree Rolls and Flour Dressers" can not be beaten in the world for light running and ease of access to all their parts. I would advise any miller building a new mill or remodeling an old one, in place their contract with The J. B. Allfree Co. Thanking you for the prompt and efficient manner in which you built my mill, and wishing you continued success, I remain,

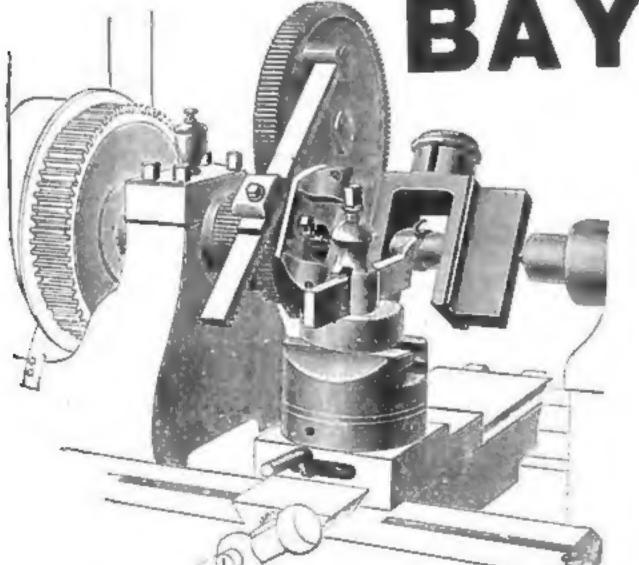
ANDREW LANTZ.

> SEND FOR CIRCULAR OF OUR 6-ROLLER CORN AND FEED MILL. THE BEST IN THE WORLD TO-DAY.



"Keystone" 6-Roller Corn & Feed Mill.

ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.

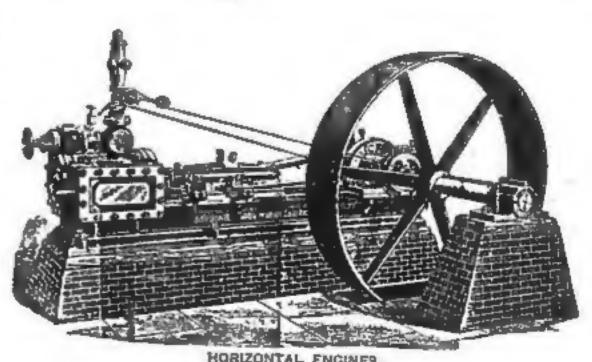


PATENT CROSS-HEAD MACHINE.

BAY STATE IRON WORKS

Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



Noble & Hall, Box 462, Erie, Pa.

OFFICE OF

CASE MANUFACTURING COMP'Y

COLUBUS, OHIO.

The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATE-MENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

The frame is of iron with a heavy iron base.

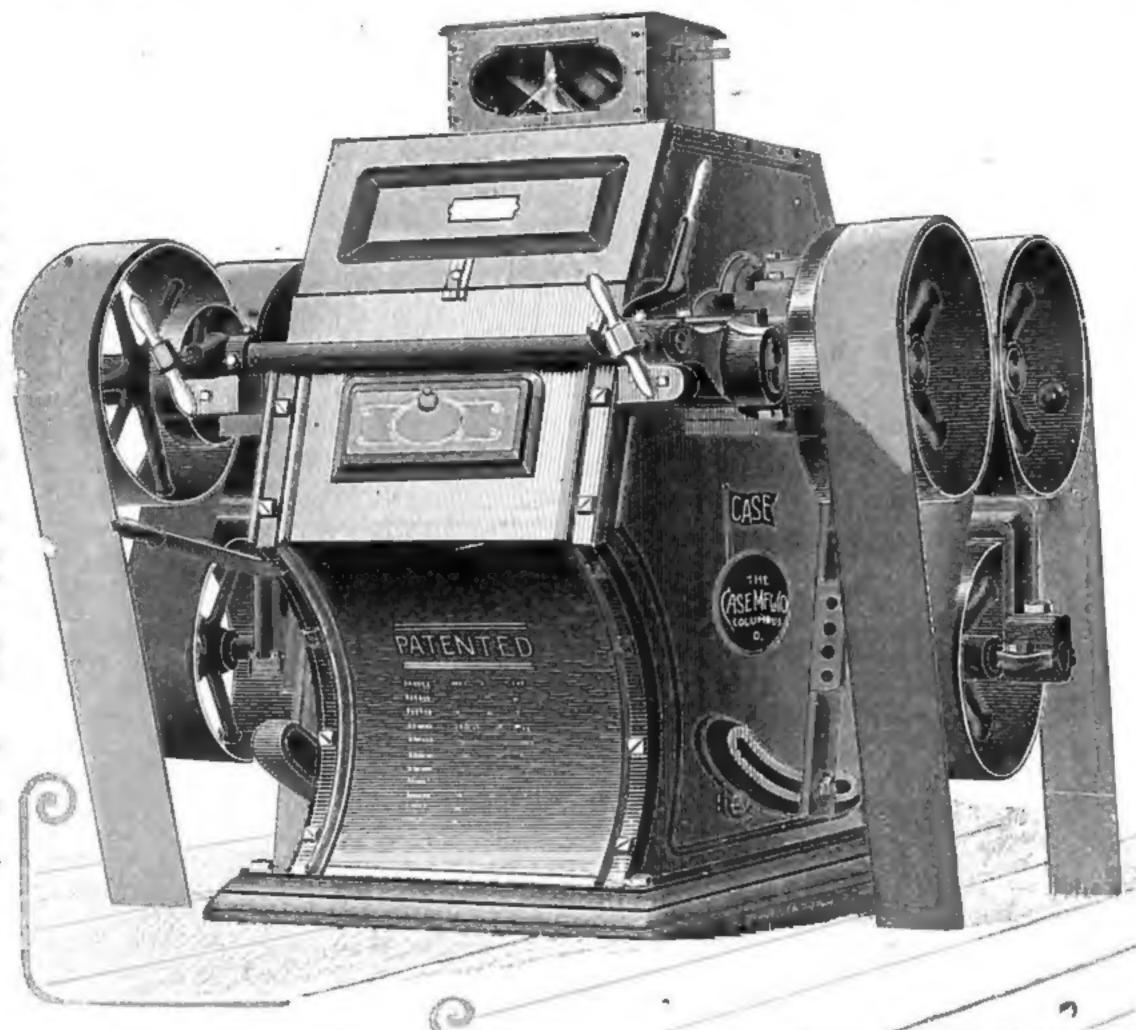
The wood-work in top is of seect cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustess.

The adjustments easy, simple and perfect.







The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience,

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one move ment of the lever, and brought back again to original position requiring no re-setting or exper menting..

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



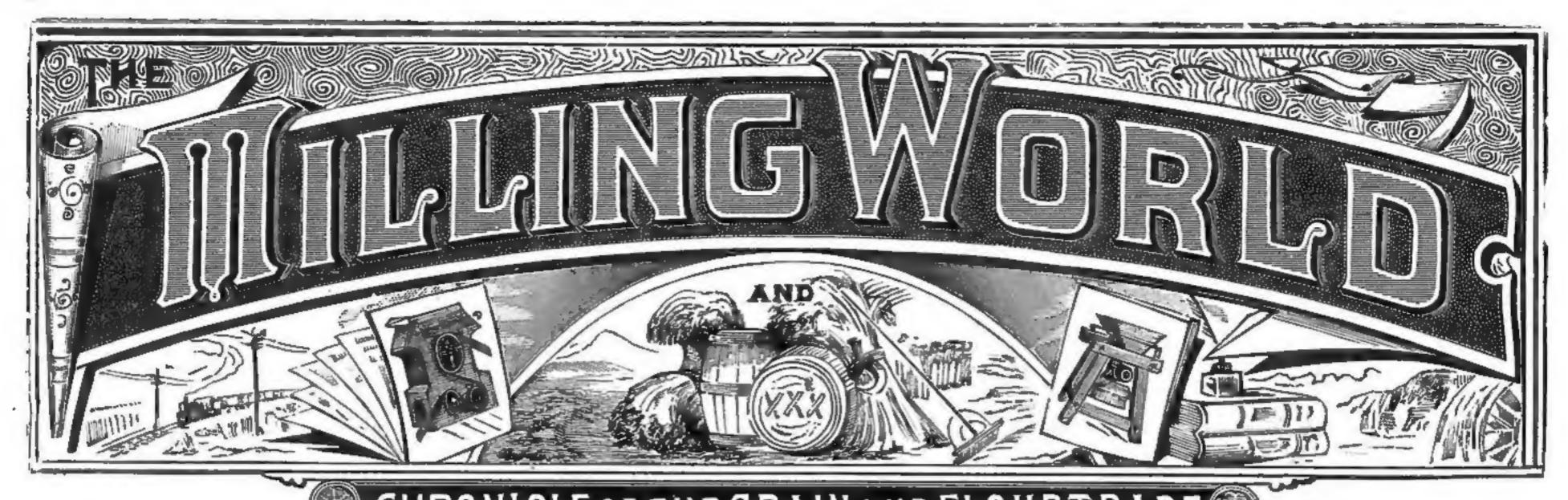
LISTEN! MICHIGAN MILLERS TALKING NOW.

CHARLOTTE, MICH., AUG. 5, 1890.

MESSRS. CASE MFG. CO., COLUMBUS, O.

Gentlemen: The mill is running fine. We are enjoying quite a fine little trade. Already have put over twenty tons of flour on the market here since we started the 7th of July, and it is giving elegant satisfaction. Every one who has seen our outfit pronounces it A 1, and the Case Automatic Feed can't be beat. In fact the Rolls are models of perfection. We are making a close finish and placing our goods alongside of the long system mills, carrying off the cake. We are highly pleased with the millwright work, and find your Messrs. McKenie and Shough congenial gentlemen to do business with.

Very truly yours, PERKINS & MOON.



CHRONICLE OF THE GRAIN AND FLOURTRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 18.

BUFFALO, N. Y., DECEMBER 29, 1890.

\$1.50 PER YEAR.

A MERRY Christmas, a Happy New Year, prosperity through 1891, long life and happiness to every patron of The Milling World!

French reports continue to show that the wheat crop of France for 1890 was grossly exaggerated in the official reports. Deliveries are dwindling weekly, and the import needs of the Republic are likely to exceed even the largest estimate yet made.

THE Farmers' Alliance, among many other preposterous things, proposes to increase the currency of the country to \$50 a head, swelling the total from \$1,550,000,000, the present amount, to \$4,150,000,000. Of course, the sapient farmers do not stop to think that inflated money means depreciated money. It is the old greenback craze in a new dress.

Winter wheat reports are confusing. In the same area the reports indicate a great pest and an absolute absence of the Hessian-fly. How this can be, it is not easy to understand. Reports from the same area indicate both a decreass and an increase in the area sown, another puzzle to the observer who believes one side till he hears the other. Up to date no reporter has ventured to figure out the exact crop of wheat for 1891. Last year at this date the crop for 1890 was figured out to a bushel, so that the feasters in the Holiday season knew just what to anticipate. Of course, the figures selected then did not come within 100,000,000 bushels of the crop, but that is a fact of no account.

According to a late announcement, Statistician Dodge of the Department of Agriculture is said to estimate the corn crop of the United States for 1890 at 1,360,000,000 bushels, a falling off from the total of 1889 of about 750,000,000 bushels. The fact that such a shortage can occur in the corn crop, in the same year with a 90,000,000-bushel shortage in wheat, a 250,000,000-bushel shortage in oats, and large shortages in the rye, oats, barley, apple, potato and other crops of the United States, without bringing famine, general distress, or even a heavy increase in the prices of foods, shows how solidly the great crops of the country depend upon the home markets for their average value. The great shortages mentioned for the crops of 1890 by no means cut the yields down to home requirements, and prices can not go up, under ordinary calls from abroad, so long as there is plenty to assure a steady supply for all the demands of consumers. The shortages, enormous as they are, really affect other nations more than they affect the United States. The money values of these shortages are imposing. The corn shortage represents at present prices about \$400,000,000, the wheat shortage about \$65,000,000 the oats shortage about \$100,000,000, and the other shortages at least \$600,000,000, or a total of about \$1,245,000,000 in the line of agricultural produce in one season. In the light of such a total, it is hardly to be wondered at that foreigners talk of a "famine crop of foods in the United States in 1890." And yet the United States can stand such a loss without serious general effect and still send abroad at least \$450,000,000 worth of goods from the produce

of 1890. This is a big country, and foreigners should not measure us by a "famine crop of wheat" of only 400,000,000 bushels. We are a long way from starving yet.

Superficial writers, both at home and abroad, are forever asserting that "the available lands in the United States are all taken up," and on that assertion they predicate, "the impossibility of any further development in the growing of wheat and cereals in the United States." They even begin to talk of the United States as "an already overpeopled country," and as "a country in which the demands of the population are already perilously close to the agricultural capacities of the soil." It may disgust, and it ought to instruct, sensationalists to learn from the report of the Secretary of the Interior that there are still nearly 600,000,000 acres of land in the United States, exclusive of Alaska, that are not taken up. North Dakota contains 30,000,000 acres, South Dakota 10,000,000 acres, Minnesota 7,000,000 acres, and Montana 65,000 000 acres, a total of 122,000,000 acres of land open to settlers, and a very large proportion of that enormous total is available for agricultural purposes, most of it for the growing of fine wheat, barley, oats and other cereal crops. If we adopt the Canadian plan of ramming wheat up to the North Pole, we may add the 370,000,000 acres of Alaska to our yet unoccupied area. European cotemporaries would do well to ponder these figures, for they mean a total overthrow of all the present calculations of the American wheat grain and flour export trade by European writers. Of course, should our wheat area remain at its present size while our population goes on increasing at its present rate, ten years will bring us to the end of our rope in wheat exportation. Our European cotemporaries assume this standstill state for us, but they are reckoning from insufficient data and erroneous premises. The Milling World believes that not even 50 years will bring the United States to the end of her wheat grain and flour exportation. Thousands and millions of our farmers, who are holding more land than they can cultivate, will let go their surplus land. Farms will become smaller, culture will be made more intense, the average yield of wheat will be doubled and trebled, and millions of acres now yielding nothing will be thrown into culture. The result will be a crop of wheat each year double or thrice that now grown. European writers, in order to be near the truth or the possibilities in the case of the United States, should no longer attempt to judge this country by the standards of India, Russia, Argentine Republic, Canada and Austalia. That those countries disappointed all expectations is no reason for assuming, or hoping, that the United States will likewise fail. European economic writers, in general and in particular, are fifty years behind the times in all they say or predict concerning the United States, and the most positive proof of this assertion is their published theory of the wheat capacities and probabilities of this country. This country has in one year grown 512,000,000 bushels of wheat, and he would be a bold prophet or an unmitigated numskull who would assert that it can not grow 1,000,000,000 bushels when the conditions shall promise a profitable market for a crop of that size.

The DAWSON ROLL WORKS CO.

FOUNDERS & MACHINISTS,

----MANUFACTURERS OF THE----

Dawson Roller Mills

-AND FURNISHERS OF-

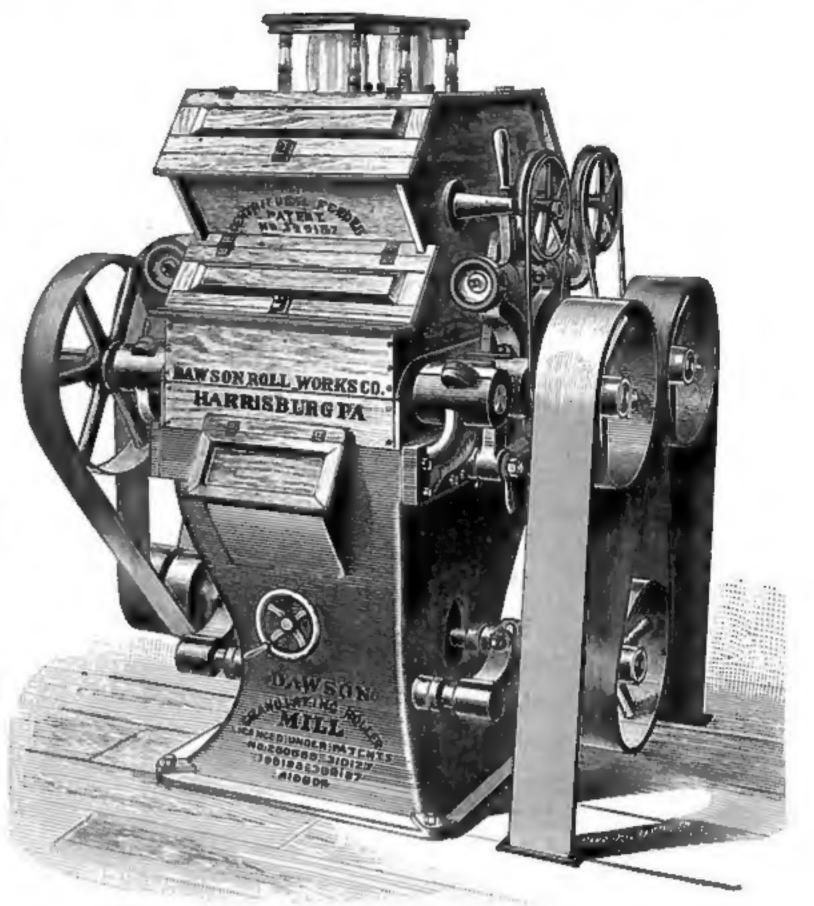
CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

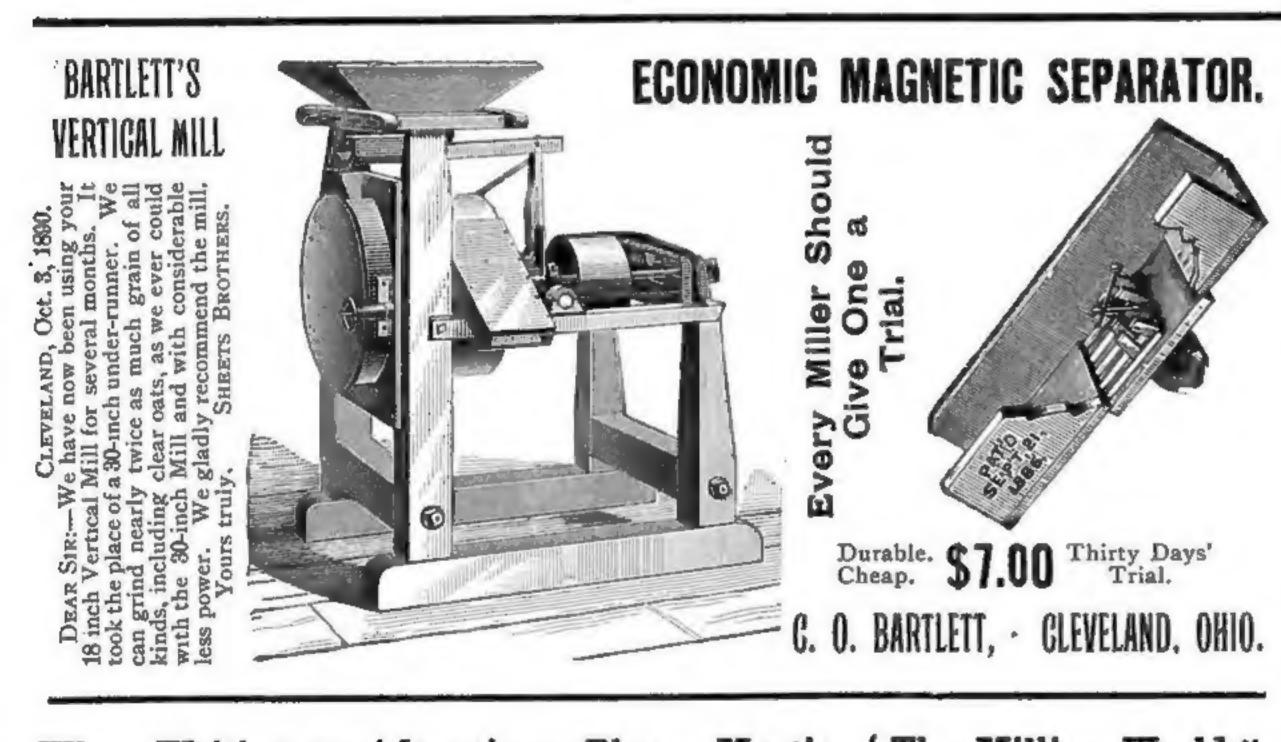
ORDERS AND CORRESPONDENCE SOLICITED.



DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.



When Writing to Advertisers Please Mention 'The Milling World."

The Grand Hotel

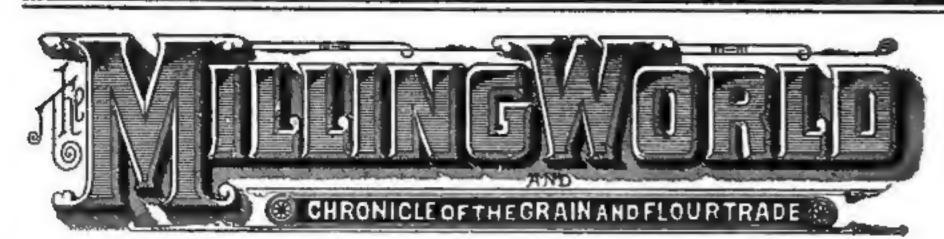
LOCKPORT, NEW YORK.

Remodeled last year. Refurnished entirely with new and elegant furniture. Fitted with all modern improvements, including Electric Lights, Steam Heat, Call Bells, Elevator, Etc.

FREE BUS TO ALL DAY TRAINS.

W. G. COMSTOCK, PROP.





Corner Pearl and Seneca Streets, PUBLISHED EVERY MONDAY. OFFICES: Buffalo, N. Y.

McFAUL & NOLAN, - - - PROPRIETORS

THOMAS MC FAUL, JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for sale or to rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all cummunications

THE MILLING WORLD,

BUFFALO, N. Y. Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines jor Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 8 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

WANTED, TO BENT.

A good Custom Mill, in a good grain section. Steam or water power. Address, MILLER, P. O. Box 170, Pocomoke City, Worcester County, Md.

FOR SALE AT A BARGAIN.

I have a half interest in a Short System Roller Mill which I will sell at a bargain. Don't write unless you mean business. Address, GEO. FOSTER, Wakeman, O. 47

FOR SALE.

A water power Grist Mill, in good condition, good location and well established trade For full particulars address GEO. H. KECK & SON, Sammonsville, Fulton County, N. Y.

FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 811 Main Street, Buffalo, **6tf**

FOR SALE.

Rare chance, Grist, Saw, Planing Mill, Lumber and Coal Yard, doing good business. Growing village; 15 miles from Washington. Owner wishes to retire. Small capital needed. Terms easy. A. FREEMAN, Vienna, Va.

FOR SALE,

A rare opportunity. A No. 1 full Roller Mill on one of the best water-powers in Iowa. Capacity of mill 100 bbls., all in the best of repair and doing a good business on Merchant work. For particulars address owner, S. F. McDONALD, Oxford Mills, Jones County, Iowa.

FOR SALE.

Flour and saw-mill with or without farm of 38 acres. Four buhr mill, with ma chinery and building in most excellent condition Buildings on farm good. Good run of custom. Can run by water 9 months, also have steam power. Terms easy. On Big Indian Creek, 1/2-mile from Crandall, on Air Line. Mrs. C. KRACKMAN, Crandall, Ind.

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.

One 20-Inch Under-Runner Portable Mill, French Buhr Stone capacity 10 to 12

bushels per hour; new, best make. One 14-Inch Vertical Feed Mill; best make, new, a bargain.

One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make;

capacity 40 to 60 bushels per hour.

Three No. 1 Corn Shellers, capacity 200 to 800 bushels per hour; new. One No. 2 Purifier. New. Best make. A bargain.

One 20-Inch Portable Mill. One 18-Inch Double Gear Portable Mill. For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y.

FOR SALE AT A GREAT BARGAIN.

The Reist Roller Mill, at Williamsville, 41/2 miles from Buffalo city line. Eighteen acres of land, with dwelling houses, twenty-two feet fall stone dam, Leffel Turbine water wheels, water the year round, steam power to assist in extreme dry seasons. Nine set 9x18 Stevens Rolls, two run of stone, three George T. Smith purifiers, grain-cleaners, scalping and bolting capacity for 80 to 100 barrels per twenty-four hours, etc., etc. Title perfect, bought at Sheriff's sale. Mill was mortgaged for \$18,000; will sell for \$5,500, without regard to loss, as I am no miller, but engaged in other business. The quick buyer will secure a great bargain. Address, WILLIS B. MUSSER, Lancaster, Pa., or my attorneys, BAKER, SCHWARTZ & DAKE, Esqs., Hayen Building, Buffalo, N. Y.

SITUATION WANTED.

Either as miller or engineer; almost a life's experience. Good recommendations given, W. B. BUSHFIELD, West Alexander, Washington County, Pa.

WANTED TO RENT.

Would like to rent a good Roller or Stone Custom Mill in some good location. Or would accept a job as first or second miller. Address V. M. HARPST, Amargo, New Mexico.

FLOUR MILL WANTED

Flouring-mill wanted at Evart, Osceola Co., Mich. Good wheat region, large territory. Correspondence solicited. GEO. W. MINCHIN, Evart, Osceola Co., Mich.

MILLERS in some western towns not favorably located are evidently inclined to think that, by some means or other, the railroads can be forced to give them freight rates that will exactly counterbalance the disadvantages of their locations. The task is one that not even the railroads can perform, although all the pressure possible be brought to bear upon them.

MINNEAPOLIS is still doing the "supremacy-as-a-millingcenter" act on a large scale. From January 1st to December 15th, 1890, that town shipped a total of 6,460,541 barrels of wheat flour, against 5,365,210 barrels in the corresponding time in 1889, and 6,575,960 barrels in 1888. Other would-be "supremacy" milling centers have strong need to hustle if they propose to dethrone Minneapolis.

This country has all kinds of millionaires. In Minneapolis flour-mill-ionaires; in Pittsburgh rolling-mill-ionaires; in Michigan sawmill-ionaires; in Louisiana cane-mill-ionaires; in South Carolina rice-mill-ionaires; in Maine and Wisconsin wood-pulp-mill-ionaires; among railroad companies stock-water-mill-ionaires; in Waybackville grist-mill-ionaires; in Boston hard-glove-mill-ionaires, and in every State and town gin-mill-ionaires by the score.

ATTENTION is called to the new advertisement of the Racine Hardware Manufacturing Company, of Racine, Wisconsin, which appears in this issue. They manufacture a long line of high-grade novelties, many of which will interest our readers. Their automatic engines, in particular, will commend themselves to thousands who read this journal. Address them for their latest price-lists and illustrated catalogues. Correspondence will pay. Mention this journal when you write.

Extreme western portions of Kansas and Nebraska report short wheat and other crops, and the reports are being misconstrued to mean that those States are poor throughout. The drouthy climate of western Kansas and Nebraska has always been thoroughly well known, and the settlers who took up lands there did so with a full understanding of the situation. The present distress was foretold by those who were familiar with the conditions. To represent the entire States as drouth-smitten and poverty-ridden is a gross injustice. Both Kansas and Nebraska have grown large crops of fine wheat in their eastern areas, and that fact should not be forgotten in summing up the conditions.

SILVER CREEK comes to the foot-lights with a new journal, "The Honest Miller," owned and edited, written and published by Mr. George B. Douglas, formerly connected with THE MILLING WORLD. The newcomer claims to be a humorous journal, and therefore it is different from anything else in the field, so far as intentions go, but it will have to do some tall humorous hustling in order to be as humorous as Neighbor Cawker's "United States Miller," which is deliciously humorous while pretending to be very tragical. "The Honest Miller" is a neat little 36-page monthly, fairly well printed, and showing on every page the characteristics of the editor. It proclaims itself an "independent" of the independents, and in the first issue it makes a venomous attack upon one of its "esteemed contemporaries," which will bring "returns" in due time. The editor will solicit no "ads," and the paper will be devoted to making the millers smile at only \$1 a year. Success to the would-be, will-be, shall-be humorous milling journalistic infant! May its breaks be lucky ones, its rolls mainly in wealth, its packers filled with gold, and all its aspirations successfully achieved.

COMING OVENTS.

A. B. SALOM.

T ABOR agitations are rapidly trending inevitably to one conclusion. Throughout the civilized world, for thirty years or more, labor has been engaged in organizing, in preparing for a conflict with capital, and in drilling its army in defensive and offensive warfare. Demagogues have molded the organizations, outlined their policies, timed their conflicts, selected their weapons and managed their campaigns. The community has suffered in every conflict. The strikers have struck, and all the lawless elements of the community have made their strikes the occasions for riot, bloodshed, arson, outrage of every form and destruction of property. The strikers did not invite those lawless elements, but the methods of the strikers themselves were so closely akin to lawless methods that the anarchists and destructionists recognized them as their own. Burning buildings, tornup tracks, "killed" locomotives, obstructions placed on railroads, mangled men, corpses of those who were killed for wishing to work, frantic mobs, all these things appealed to the anarchists. Terrorized laborers, intimidated men and women, boycotted firms and individuals, these were the results of the lawless warfare urged and waged by the demagogues who mislead labor.

Revolutions never stand still. The labor revolution did not, and does not, stand still. The logic of events is inexorable. Cause insists on effects. The demagogues, once started on a compaign of aggression, can not retreat. Retreat, or even halting, would mean defeat. The demagogues aimed to convert the world to the theory that the only element deserving consideration is the labor element, that the one element always and everywhere wrong and indefensible is capital, that all the crimes committed by organized labor are excusable, and that all the acts of capital, good or bad, are wholly criminal. With this theory inscribed on their banner, the demagogues have for thirty years been waging a one-sided conflict with capital, law and order, and the community at large. What is the result? Loss, chaos, disunion and disaster to labor, loss, inconvenience and discomfort to the community, and finally a perception by capital of the necessity for a counter combination, for a defensive and offensive alliance to meet and cope with the demagogues and their followers. The signs are multiplying that a combination of capital is to be one of the events of the near future. Capitalists have rested content with doing what they could single-handed against the unreasonable demagogues, but they begin to see that they can no longer safely trust their interests to the mercies of the organized demagogues.

Shadows of this coming event are cast before. Recently the organized demagogues who control the bricklayers in New York made an attempt to compel the makers of brick, at several points on the Hudson river, to discharge 1,900 non-union employes or to force them to join the 100 union men in their employ. The makers refused. The 100 union men and the "walking delegates" insisted. The makers remained firm in their refusal. The New York "walking delegates" ordered a "boycott" of the product of the yards of the makers. Labor was "on top." Then a new element appeared. The other Hudson river makers, thoroughly understanding the significance of the boycott, knowing that it was likely to be extended to their own yards, came to the rescue of the boycotted makers. They decided to send no more brick to New York so long as the boycott remained on the other firms. Labor had invited a contest with capital. The shipments of brick to New York ceased. Nearly 100,000 laborers were thrown out of work. Capital made its power felt most uncomfortably. The boycotters were boycotted. The situation was novel. It revealed to thousands of laborers their utter helplessness when once capital actually accepts the challenge so often offered by organized labor. The biters were bitten. The "walking delegates" were nonplussed. The calculations of the demagogues went astray. They did not know what to do. They were appalled by the shadow of a coming event, a disastrous defeat for labor misled by quacks.

Capital is showing its teeth against organized crime masquerading under the name of organized labor. The New York Central Railroad Company takes the initiative. That corporation recently locked horns with the Knights of Labor, in a contest forced by the order. The revelations of dangerous conspiracies made at the close of the strike startled the country. The attempts to wreck the company's trains and kill innocent passengers, as a means of revenge upon the company, were traced to and confessed by members of that order. The confessions gave the public another insight into the peculiar working of that peculiar order, and the officials of the New York Central Railroad Company, wisely concluding that prevention is better than cure, have issued the following notification to its department heads:

The recent strike, the acts of lawlessness committed in connection therewith, the published correspondence between the leaders of the organization that ordered it, and the fact that many men now seeking re-employment state that they quit work from fear of personal violence, and did not dare to offer to resume work for the same reason, compel the management of this company to announce that it objects to its employes being members of the organization known as the Knights of Labor. The management is satisfied that membership in this particular organization is inconsistent with faithful and efficient service to the company and is liable at any time to prevent it from properly discharging its duties to the public. You will at once take such action as will bring this circular to the attention of the employes in your respective departments.

Across the Atlantic the coming event is casting a more pronounced shadow. Early in September, in London, England, where trades-unionism has been particularly rampant and unreasonable, the shippers formed a combination to protect themselves against further outrage at the hands of the demagogues. Their union is formed with the avowed object of dealing with labor questions throughout the world, of protecting employes from trades-union terrorism, and especially of resisting the tyrannic and unreasonable encroachments of the trades-unions. The majority of the cargo and passenger lines are in the union, and the association represents an invested capital of \$800,000,000. In Scotland the ship-builders have been forced into forming a similar defensive league, and they employ \$400,000,000 of invested capital. British trades-unionism has now a chance to show the relative strength of capital and labor. The demagogues assert that capital will be helpless whenever labor revolts. It will be interesting to study the condition of labor when once capital shall make an organized revolt against its intolerable and unreasonable tyranny.

Elsewhere there are signs of the coming event. It is hinted that the railroad companies of this country are quietly forming a combination that is to include every important line in the land. In all probability their motto will be that of the labor demagogues, "The injury of one is the injury all." The existence of such a combination will precipitate the inevitable conflict. Cheap demagogues, like the discredited head of the order that recently attempted to stop all the business of the United States because a railroad company dismissed several drunken, inefficient and superfluous employes, may dislike to face the stern fact, but the fact is here. Organized demagogism and anarchism will be met by organized capital. The advantage, morally and materially, will be with capital. Capital is not forcing or inviting the contest. It does not offend. It merely defends. It can live while the contest lasts. The demagogues, not true and honest labor, but the demagogues and anarchists, offend, invite the battle, and select the weapons. The law is against them. They are offenders. The battle can have but one ending. The aggregate moral sense and intelligence of the community will applaud the defeat of these irresponsible criminals.

Labor should not follow the demagogues further. The heads of the unions are unsafe leaders. Honest workingmen should refuse to be parties to movements based on unreason and furthered by criminal instrumentalities. The great bulk of American labor is outside the organizations, and it will remain outside. The average American, whether workingman or capitalist, is more interested in justice than anything else, and he will never be able to believe that a

company has not the right to discharge an employe without interference by the State or the nearest body of anarchistic agitators. If the American laborer can not see the truth now, his eyes will be opened suddenly when organized capital takes up the sword against organized folly and lawlessness, masquerading under the name of labor, and in one mighty battle scatters the army and wrecks the structure of so-called trades-unionism beyond all hope or possibility of repair.

POINTS IN WILLING.

Corrugations appear to be attracting a good deal of attention from the inventors and improvers of milling machinery. Nearly every man who attempts to improve the modern highly improved roller-mill is likely to begin with the corrugation of the rolls. Scores of styles of corrugation are already employed, some very good, some good, some ordinary, and some inferior. There is no doubt that the efficiency of a roll, in both quantity and quality of work done, can be greatly increased by a proper corrugation. This idea underlies many of the recent American impovements on corrugation. The same idea is working in Europe as well as here.

It is announced from Paris, France, that "a new corrugation for the first break has recently been brought out by Messrs. Aubert & Co., a French engineering firm. In this the fast roll is corrugated in the ordinary saw-tooth style, but the slow roll has an oval groove, of which the width is five times that of the depth. It is claimed that little or no break flour is made, while the cutting up of the bran is reduced to a minimum."

SHOULD this French corrugation answer the claim made for it, namely, that it accomplishes the first break without producing break flour to any important extent, and at the same time does not cut up the bran badly, it will mark a decided advance in the science of corrugating rolls. The one great evil of many of the earlier corrugations was the certainty that the first break would produce an undue quantity of break flour, composed of the outer gluten cells and weakening the flour of subsequent reductions, and would break up the bran and mix it almost hopelessly with the break flour. The miller was thus placed in an unpleasant and unprofitable dilemma. If he made no attempt to recover the flour from the broken-up bran, he knowingly let a large percentage of the real strength of the grain go to waste. If he attempted to recover the flour, the presence of the broken-up bran meant discoloration in the product. Later corrugations have enabled flour-makers to advoid the horns of this dilemma very successfully.

I AM inclined to think that corrugation of rolls is a study that offers great prospects of success for inventors. Every miller, that is to say, every miller of the thinking, experimenting, progressive class, has a theory on nearly everything in his mill. I find countless theories of corrugations, and the inventor who desires to "make a break" in this line can easily get a head choke-full of theories and ideas, good, bad, worthless and valuable, by a trip among the practical millers and by talking with them.

What has become of the phenomenal Haggenmacher "Plansichter"? I can find no trace of the machine, or anything like it, in this country. Surely, if it is what it was claimed to be, it should be utilized in the mills of the United States. There is no bias in the American mind that will prevent our millers from accepting foreign machines of great excellence. The "Plansichter" was vaunted to be a most remarkable sifter, and yet, so far as I am aware, no specimen of the machine or its work has been shown anywhere in the United States.

THE "mossy old mill" and "the babbling water wheel" of the rhymesters whom THE MILLING WORLD so heartily detests are fast disappearing. There are whole States in which not one real old-fashioned mill of the water-wheel class can be found. The great milling sections are generally

wholly or largely destitute of water-power, and the modern mills, most of them at least, are steam mills. I am reasonably familiar with both classes of mills, having known the old-fashioned water-mills from boyhood, and the steam mills almost from their start, and I am prepared to admit that, whatever loss the disappearance of the water mills may inflict on poets and poetry, still their disappearance means so much of an advance in all things utilitarian that we ought to be glad to substitute the fine flour and good bread of the modern steam mills for the wholly dubious poetry that grows with the green, oozy, slimy, creaky, fungoidal old water mills, and for the wholly bad bread that was the general outcome of the alleged flour produced by the ramshackle old mills.

The old water mill was always in a dark, damp, unwholesome gorge, in a place always bad for grain and grinder
alike. The new steam mill is always located in air and
light. The American mill may properly be said to have
"got out of the woods." It will never go back, even to
please the water-wheel rhymaniacs, for whom The Milling
World's disrepect seems scarely capable of diminution.
Why should not the singers, or gushers, tune their sounding lyres to the toot and hiss of the steam mill, with all the
modern appliances, and give the Muses Nine a lively
dance to the conglomerated sounds of the modern roller
mill? Why should they prefer to consociate potery with
the dank, dark, malarial gorge and the old, moss-covered,
moldy, rickety water mill?

Three years ago the British experts were very sure that American wheat was deteriorating, and that American flour was growing so poor in quality that it "would not much longer be able to hold its market in Great Britain." Despite this talk, American flour still leads the markets in Great Britain, and the amount of it that goes to England is measured more by the amount the United States can spare from its surplus than by any other element in the situation. I do not find that American wheat is losing its strength or other valuable qualities. In average seasons the grain is as good as it ever was. Even in "bad" seasons, like 1888, when the American grain was probably the poorest ever harvested in the country, it was still able to "hold its markets" in Great Britain against the super-vaunted Hungarian and other "crack" wheats.

THE other day I was visiting an old acquaintance, a miller converted from the old to the new style of milling in the early days of the "roller revolution," and in talking over details he said: "I read your account in THE MILLING WORLD of the man whose dinner-pail was full of stolen flour. The same thing has happened to me more than once. I once employed three men in my mill, who lived quite a distance from the mill. One snowy day I sent my teamster to take them home. The sleigh was upset in a drift, and all were dumped out. The workmen, two of them, had big dinnerpails, and the other one had a basket of good size. When the sleigh was thrown upside down, the pails and basket were opened and emptied, and that teamster was nearly smothered in flour. It fell on his head, filling his hair, whiskers, ears, eyes, nose and mouth, and ran down next to his skin, clean into his boots. The three workmen were mum, but the teamster was howling. When he got back, he came to my house to show himself and to explain. The snow had wet the flour and he was a mass of dough. Of course, it was at my expense, but I could not resist the temptation to open an oven and invite him to get in and be baked into a big cruller. O! but he was I mad man, madder than a wet hen! He was a stalking flapjack, minus the baking. The three workmen did not get to the mill the next day, as the drifts were impassable, but they turned up on the second morning, and, strange to tell, the cold weather had contracted their dinner-pails remarkably. I refrained from saying anything, and they kept waiting for me to open the subject. I never mentioned the teamster's recital to them, and they never again brought the suspiciously

large dinner-pails to the mill while they worked for me. How much flour they had stolen from me I could not even guess, but it was probably a large amount in all. The owner of a mill is justified in looking out for leaks via dinner-pails or other suspicious packages."

WILLING PATENTS.

Among the patents granted Dec. 23, 1890, are the following: Wm. Gribben, Croswell, Mich., No. 443,139, a feed-regulator, comprising the combination of the hopper provided at its lower end with the collar, the conical distributer arranged at the bottom of the hopper and secured thereto, the band closing the back of the hopper and forming a semicircular discharge-opening, the sliding sleeve arranged upon the collar and adapted to vary the size of the discharge-opening, the central vertical shaft, the screw arranged upon the shaft and capable of vertical movement, and being connected with and operating with the sliding sleeve.

Samuel Loree, Cincinnati, O., No. 443,143, a combined corn sheller and cutter, comprising the combination of the main frame, the knife-carrying ring mounted and revoluble on said frame, the curved spring-pressed knives mounted in said ring and converging to the center thereof, the removable annular support for the knife-carrying ring, gearing for giving rotary motion to the knife-carrying ring, and the double-flanged spring-pressed guide-rollers mounted in the

supporting-ring.

Francis H. Richards, Hartford, Conn., No. 443,180, a grain-weigher, having a supply-chute and a regulator-valve therefor, the combination, with the fixed hopper located below the grain-bucket and having a continuously-open discharge-outlet, and having a floor-opening in one of the floor-walls thereof adjoining and connecting with said discharge-outlet, of the vertically-movable regulator-plate underneath and closing said floor-opening from the outer edge thereof to said discharge-opening and normally supported by counterweighting, said plate being connected with the valve, whereby the machine is regulated by the action of the grain on said plate.

Alexander Laidlaw, Toronto, Ontario, Canada, No.443,366, a grain-cleaning machine, comprising the combination of the shoe carrying the sieves, the spout leading from said shoe, the perforated cylinder into which the spout discharges, having a discharge-spout at the opposite end thereof, the shaft passing through the cylinder and having the corrugated blades fixed thereto, the air-leg communicating with the discharge-spout of the cylinder, the vibrating shoe carrying the screens and having a discharge-spout, the cylinder into which the spout discharges, and polishing-brush therein.

Arthur Moore, Toronto, Ontario, Canada, No. 443,372, a

grain scourer and cleaner.

Walter McKinley, Tremont City, O., No. 443,400, a flour-sifter and spice-bin, one-half assigned to W. J. Wyant, same place.

SUBSIDIZED MERCHANT NAVIES.

United States imports and exports are carried chiefly by the ships of other nations. Those ships are kept affoat by large subsidies, and the United States merchant navy will never be built up to the needs of the country until we subsidize our vessels as liberally as other countries subsidize their vessels. For instance, while the United States pays nothing to develop her merchant navy, Great Britain, with her established commerce, still pays heavy bounties, in one form or another, for the encouragement and support of her merchant marine. The Peninsular and Oriental Line to India receives about \$1,200,000 a year from the British Government for carrying the mails to India. This is from twice to three times as much as the French and German lines have repeatedly offered to perform the same service for. Last year the mail subsidies paid by Great Britain amounted to more than \$3,000,000. The crack Atlantic liners, the "Majestic" and "Teutonic," the "City of New York" and the "City of Paris," receive each \$50,000 annually in time of peace as a retaining fee for their services as auxiliary naval vessels in case of war. The ships of the new

British line across the Pacific receive \$75,000 annually as an Admiralty subvention, besides \$300,000 a year from the Post Office.

France has paid a shipping bounty since 1881. It amounts in the aggregate to about \$2,000,000 yearly, and is paid both for construction and for navigation. The navigation bounty amounts to about 29 cents a ton for every thousand miles run in foreign voyages. Besides this, in lieu of it in the case of the mail steamers, there is a liberal subsidy from the Post Office. The Compagnie Generale Transatlantique receives \$864,254 a year for carrying the mails to the West Indies and Mexico.

Germany pursues the same policy as Great Britiain. Since 1885 she has paid \$1,047,619 a year to the North German Lloyd for its Mediterranean and East Indian service. Last spring an annual subsidy of \$225,000 for ten years was granted to establish a new German line from Hamburg to the east coast of Africa.

Italy's shipping policy is more like that of France, but her bounties for construction are considerably heavier. She pays about \$14 a ton for Italian-built ships of iron or steel, and she pays also a considerable bounty on Italian-built steam engines and boilers. The navigation bounty is 13 cents a ton of gross measurement for every 1,000 miles run, and the large Italian steamship lines receive in mail subsidies about \$2,000,000 yearly.

Spain is making efforts in the same way to increase her carrying trade. The Government pays a construction bounty of \$7.72 a ton on vessels built in Spain. The mail subsidy to the West Indian line is \$1,500,000 a year; to the line to the Philippine Islands \$700,000 a year. The Spanish line between Cuba and New York gets not less than \$8,000 from the Spanish Government for every round voyage sailed in the attempt to kill off the American steamship business between New York and Cuba and Mexico.

ONE VIEW OF WHEAT.

Writing in the New York "Tribune" on the wheat situation, "W. M. G." says: "In five months of the current crop year the Pacific States have exported to foreign countries 9,691,679 bushels of wheat, against 9,511,440 during the same months last year, and 719,185 barrels of flour against 635,525 last year. But in the same five months the Atlantic States have exported only 8,981,077 bushels of wheat, against 12,-954,004 last year, and 3,426,702 barrels of flour, against 4,287,-161 last year. The following statement shows the amount of Atlantic exports of wheat alone in bushels each year by months with the export price:

| | Quantities. | | Price. | |
|-----------|-------------|------------|----------|-------|
| Month. | 1890. | 1889. | 1890. | 1889. |
| July | 3,160,993 | 1,793,216 | 96 3 | 81,6 |
| August | 557,111 | 5,216,392 | 98.3 | 87.4 |
| September | 638,563 | 2,229,602 | \$1 01.0 | 84.4 |
| October | 839,613 | 1,966,663 | 99.4 | 88.0 |
| November | 784,797 | 1,748,131 | 1 02.7 | 87.0 |
| Total | 8,981,077 | 12,954,004 | 98.2 | 86.9 |

"The cause of this decrease in Atlantic exports is perfectly obvious. The average export price for November from the Pacific States was 79.8 cents per bushel, against 78.5 cents last year, an advance of only 1.3 cents. But the average export price from all Atlantic ports was \$1.027 this year, against 87 cents last year, an advance of 15.7 cents. The consequence is that foreigners take the Pacific wheat, and that of other countries which has not advanced in price unreasonably, and let the Atlantic wheat alone. Because of the speculation in Atlantic states, and for no other reason. the aggregate exports, flour included, in five months ending with November, have been equivalent to 37,329,247 bushels, against 44,617,531 bushels last year. It may be observed that in the month of August, when the Atlantic exports were large, the export price was fully 5 cents per bushel below the average price of wheat at New York for the month, and the difference in October was 6.5 cents per bushel, indicating that quantities actually shipped have been moved in the main without regard to the speculative market. But the speculative prices have to a great extent prevented purchases in the markets in this country on foreign account.

"The quantity exportable for the current crop year, calculated on the basis of the census report of population, with the average consumption for the past eight years, is 111,-659,194 bushels, so that there remained available for export 74,329,947 bushels December 1, against 64,831,099 bushels actually exported during the seven remaining months of the last crop year. These figures include all flour exported, and as the surplus is now 9,500,000 bushels greater than last year's exports after December 1, it will be seen that the quantity carried over next July is likely to be about 69,500,-000 bushels, against 59,000,000 bushels last year, provided (1) exports do not continue to fall behind those of last year, and (2) consumption is not reduced below the average by the advance in price this year. But there are not many who will suppose that the consumption is quite as large with wheat at \$1.027 as with wheat at 87 cents, and a shrinkage in consumption would leave a still larger surplus unsold and unconsumed. Nor are there visible reasons for supposing that, with wheat at anything like present prices, foreign markets will take away the surplus, when they can get Pacific Coast wheat at about last year's prices, and also abundant supplies from other parts of the world. It may therefore be anticipated with some reason that, unless prices yield, the surplus to be carried over will be still further increased beyond the above estimate by a shrinkage in exports for the remaining months of the crop year."

Millers quite often see statements in regard to the short system that, while in a sense stating a truth, are apt to mislead them into serious error. Among such is one by a cotemporary, referring to the decrease in the number of purifiers now used in comparison with the number in use formerly, in which occurs the following: "The short system has brought about a great curtailment in every part of the machinery equipment, except the grain-cleaners." Where this is likely to mislead is in that less effective cloth is now used than formerly, and millers may and often do conclude from such inspirations that less actual surface is required, and on this view injure their work. The shortening is indeed great as regards the number of machines now necessary, but it is due to radical improvements in dressing-

machines that greatly increase the capacity of the cloth, and the scalping-dressing system that in large measure has supplanted the work formerly done by purifiers, and has done it by means that derive a maximum effect from a minimum of cloth, saving in time and improving the stock by requiring less spouting and less travel that, under the old method, acted as a reducing agent and created much soft, impure stock. The system has been shortened by improvements in the machines, but not by leaving out the elements of separating and purifying originally included in the gradualreduction process. By scalping off the coarse product the dressers are given less stock, and what is delivered to it is such as it is best designed to handle. The cloth itself, instead of three-fourths of its surface being idle, and the other onefourth "crammed," is now three-fourths active, and none of it overloaded, giving much greater capacity and securing far more perfect work, and hence one of these machines supplants two or three of the old, shortening the method, but not system. Perhaps nothing ever caused so much befuddlement as this short-system controversy, and only because millers and some of their teachers confound the method with the system. - Indianapolis "Millstone."

SPECIAL NOTICES.

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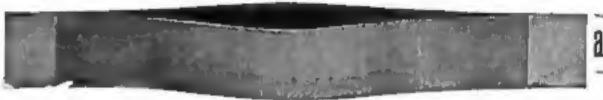
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GENERAL NOTES.

The regular interest-bearing debt of the United States Government now amounts to about \$629,000,000. Of this sum \$61,000,000 are in 4½ per-cent. bonds, which mature on September 1, 1891, and \$568,000,000 are in 4-per-cents., which become payable, at the option of the Government, on July 1, 1907. This is the whole of the national indebtness which is any burden to the people, for the \$346,000,000 greenbacks are virtually a debt in name only, and the \$65,000,000 bonds of the Pacific Railway are not an obligation of the nation. This is a smaller debt than any other great Power of the world has except Germany.

MICHIGAN MILLORS WILL MEET.

Following is abstract of the invitation sent out by Secretary M. A. Reynolds, of the Michigan State Millers' Association, to the millers of that State, under date of December 24th: "The regular annual meeting of the Michigan State Millers' Association will be held in the City of Lansing, Thursday, January 8th, 1891, commencing at 10 o'clock, a.m. The session will be held in the new building of the Michigan Millers' Insurance Co., on Ottowa Street, near the north-east corner of the Capitol grounds. In view of the fact that one day is always too short a time to do the business we undertake, and that you can not be prevailed upon to stay two, it is earnestly desired that as many as possible be present on the afternoon and evening of the 7th, so that an informal meeting can be held, a sort of go-as-you-please, everybody-get-acquainted affair, that will put all on good terms and insure a large attendance ready for business promptly at the hour next morning. A capital idea is suggested in connection with this informal afternoon and evening meeting on the 7th, which I think will meet with favor among our members at least. It is proposed that each member of the Association, and as many others as choose, bring with them samples of their flour and feed and compare them with their neighbors'. Such a comparison can injure nobody, and it may throw some light on the difference in price in the same market which our weekly reports so frequently show. Are the higher prices due to superior quality, or superior marketing? Let us settle this by a comparison of goods, for some day, not far distant, Michigan flour going to points outside the State is to be sold under one brand, through one agency. The place of meeting will be highly conducive to this scheme; there will be ample room with no fear of interruption, permitting the utmost freedom of expression while affording superior advantages for comparison which would not be possible in a hotel parlor. It is thought that the paper sack deal is now "ripe enough to pick," and it is believed there is money enough in sight for each member of the association who desires to enter into a plan, to be submittted for your consideration, to pay your association dues and assessments ten time over every year. It will be necessary for every member to bring a statement showing the number of paper sacks used annually. A letter from Minneapolis, in relation to the miller's trans-atlantic trip, says: 'According to the plan now proposed, the Miller's Excursion will leave New York May 13th, on the 'City of New York,' for Liverpool, land at Liverpool 20th, spend 21st and 22nd there; 23rd leave for Edinburgh, spending 24th there; 25th visit Leith; 26th leave for Glasgow; 28th leave

Glasgow for London, spending 29th, 30th and 31st there; June 1st leave London for Bristol; June 2nd spend the day in Bristol; June 3rd embark for New York on the 'City of Chicago,' reaching New York June 12. The price of a round trip ticket, including hotels, transportation and all necessary expenses will be \$228. Members of the party wishing to prolong their stay can do so, as the return ticket is good for 12 months. Independent tickets for travel on the continent, through Ireland, or any part of England or Scotland, will be provided at regular rates. If a sufficient number desire it, a special extension of the tour to visit Paris and some other portions of the continent is contemplated. It is necessary to secure at least 50 in the party to get the rate.' As many as think they will make the trip are requested to announce the fact at our meeting. D. H. Ranck, of "The Millstone and the Corn Miller," well and favorably known to all of us, will read a paper entitled 'Are You Afoot or Mounted?' It was humorously requested that he throw an air of mystery about the title of his discourse, and that he has fully complied with the request will not be disputed. The Railway Association of Michigan has granted a special rate for the meeting, but the conditions that go with the favor are impossible ones, so it amounts to no rate at all. A rate of \$1.50 per day for all attending the Insurance or Association meetings has been made by the Hudson House. In view of the fact that a large crowd is expected on the 7th to take part in the inauguration ceremonies, it will be well for each one of you who intends to be present to notify me of the fact at once, so accommodation may be secured."

Following is the programme of exercises for the convention: 1. Calling Roll of Membership and Reading Report of Last Meeting. 2. Secretary's Report. 3. Reading Communications. 4. Fast Freight Lines. Their relations to the Railroads and to Shippers. 5. Millers' Mutual Insurance Companies of other States. Should our laws be less stringent in regard to their admission to this State? 6. State Grain Inspection. Report of the Special Committee. 7. Paper Sacks. Submission of definite propositions to furnish the Association at special prices under certain conditions. Can not the use of cotton sacks be dispensed with, with great profit to the Association? 8. Weekly Reports. How can their usefulness be increased, and what plan adopted to secure reports from every shipping member? 9. Constitution and By-Laws. Shall we have a new deal? 10. Electic n of officers for 1891. 11. Miscellaneous Business.

The simplest and most efficacious method of the roughly cleaning the various parts of machinery, that have become gummed and dirty by the use of fat oils for lubricating purposes, is by using a strong soda lye. For each 1,000 parts by weight of water take about 10 or 15 parts by weight of caustic soda or 100 parts ordinary soda. Let the solution boil and enter the parts to be cleansed; either boil them in this lye or let them steep in it for some time. All the dirt and oil resin is completely dissolved thereby, and it remains only to rinse and dry the parts. The action of the lye is such that it enters into combination with the oil and forms soap, which is readily soluble in water. In order to prevent the hardening of the lubricant on the machinery parts, it is only necessary to add about one-third kerosene. An occasional lubricating with kerosene alone is to be recommended.

THE farmers of Kansas made an average of \$7.34 per acre raising wheat in 1890, and not a small proportion of the land on which it was grown could be bought for that price.

BOOKS AND PAMPHLETS.

Says the Springfield, Mass., Republican: "Good Housekeeping has a much more substantial value in the home than the sensational publications which appeal for the same support and rely on a style of puffery that would put a patent medicine man to blush; and it has the honest and substantial flavor that belongs to the best things of New England. Merit in its contributors outweighs the magic of a name, and this good old standard serves to give the best results. That it should prefer the practical knowledge of expert New England housekeepers to the superficial observations of professional writers who have not acquired information at first sources, ought not to be wondered at by intelligent people."

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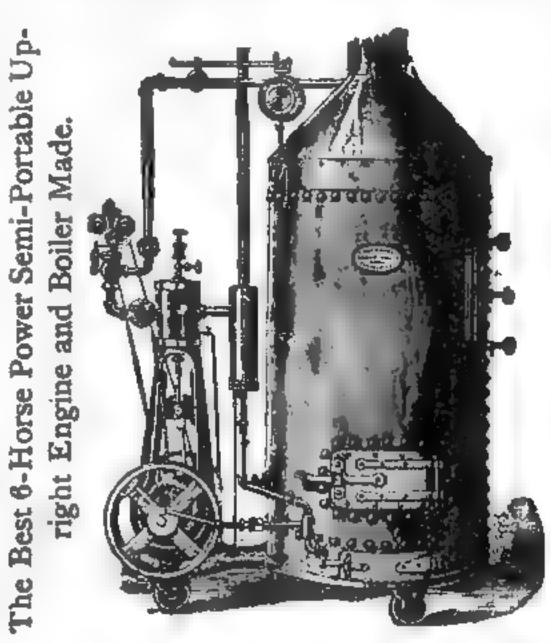
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Haskell, Tex., men project a grist-mill. Colorado, Tex., men project a grist-mill.

A. Razer's grist-mill, High point, N. C., burned. J. F. Turner's grist-mill, Lavender, Ga, burned.

A. G. Winter, feed-mill, Beaver, Minn., sold out.

Million & Botts' elevator, Kahoka, Mo., burned; loss \$6,000.

Wolfe & Richmore, millers, Culbertson, Neb., are succeeded by Wolfe & Benedict.

J. Cretors & Son, millers, Leavenworth, Kan., foreclosed on a chattel mortgage for \$7,100.

N. N. Porter, Cisco, Tex., has bought the Cisco roller mill and will improve and operate it.

Wilber, Wash., men incorporated the Columbia River Milling Co., to build a flour-mill at once.

Warner, Moore & Co., Richmond, Va., have made improvements on their mill at Manchester, Va.

Neely & McCord, Pulaski, Tenn., increase the capacity of their cornmeal mill and want machinery.

R. G. Patterson, Somerville, Tenn., builds a grist-mill in Fayette county; he wants an outfit of machinery.

The Carolina Rice Milling Co.'s rice mill, Washington, N. C., burned; they will rebuild; their office is in Wilmington, N. C.

J. J. Mott and others, Statesville, N. C, organized the Statesville Milling Co., and they are building a roller flouring mill.

Grain shippers in the West . 'e organizing to test the right of railroads to advance rates on food products above those fixed by the Interstate Commerce Commissioners.

Very cold weather is reported in France and as the ground is bare of snow, some injury to the wheat plant is feared. There are also complaints of damage by severe weather in Russia.

The seven crops of wheat harvested in India since 1883 show the average yield per acre to be 8.73 bushels, little over two-thirds the average yield of United States wheat fields. The entire agricultural outfit of an Iudian farmer is worth about \$10.

Receipts of grain at New York for the canal season of seven months, by canal and rail, compare as follows: Wheat by canal 9,245,100 bushels; by rail 3,496,000 bushels. Corn by canal 16,272,200 bushels; by rail 4,767,-100 bushels. Oats by canal 1,556,700 bushels; by rail 19,617,200 bushels.

A report from Cedar Rapids, Iowa, says: "It is said here on good authority that a Scotch syndicate, with James Logan at its head, has secured control of the Forest Milling Company's plant, together with five other oatmeal mills in this vicinity. It is also understood that they will make an effort to secure control of all the oatmeal mills in this country."

South Australian mail reports to the end of October say that harvest prospects were less favorable than before, owing to the prevalence of gales of wind and rain throughout the wheat districts. The yield was not expected to exceed last year's average of S bushels per acre, which is about the average.

The elevator at Richford, Vt., is built upon 96 stone piers, 7 feet square at the base, 4 feet square at the top and 12 feet high. The elevator will be 151 feet high, 132 feet long and 90 feet wide, with a receiving capacity of 500,000 bushels, or a little over 30,000,000 pounds. The power is supplied by an engine of 175 horse-power, in a building adjacent to the elevator, and a carload of grain containing 666 bushels, or 40,000 pounds can be unloaded in 7 minutes, easily disposing of 300 carloads per day. The elevator is to be lighted throughout by electricity, furnished by a dynamo | Robert Ruston, Melrose Mill Co., Evansville; J. L. Knauss, Heilman

Wheat exports from the seven Atlantic ports from Sept. 1 to Dec. 13, 1890, were 3,570,441 bushels, against 6,661,480 bushels for same time in 1889. Exports of flour for the same time from the same ports were 2,616,-989 barrels in 1890 against 2,936,390 barrels for the same time in 1889. The exports of flour and wheat together for the above period in 1890 equal 15,347,891 bushels, against 19,875,235 bushels for same time in 1889.

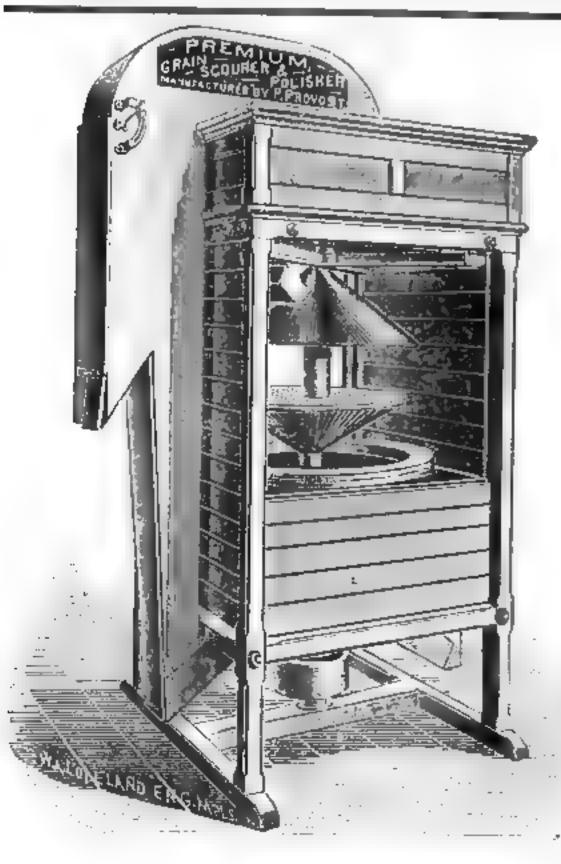
Minneapolis reports state that the stock of wheat in private elevators of Minneapolis is 3,789,000 bushels, a decrease of 32,000 bushels from a week ago. The stock at Duluth was 3,332,462 bushels, making a total of 12,711,-022 bushels at the two points, a gain for the week of 436,258 bushels. The Market Record estimates the wheat in country elevators of Minnesota and the two Dakotas at 8,900,000 bushels, an increase of 176,000 bushels. The aggregate stocks of the Northwest are thus swelled to 21,998,760 bushels, against 20,998,760 bu. one week ago, or a gain of 612,259 bushels.

Says a recent Manitoba letter: A good deal of grain remains to be threshed yet in Manltoba. In some districts threshing has been finished, and in most other districts it is well advanced toward completion, but in other sections not over half the grain has yet been threshed. As the work is finished in one part, the machines are released and sent to parts where the work is more backward, so that those districts which have been short of machines are getting their wants supplied. It is evident that there is a lot of grain yet to be marketed in Manitoba when it is considered that there is a lot of threshing yet to be done.

The Illinois State Millers' Association held their 16th yearly convention in Springfield, on December 3rd. About 40 millers were present. The two mutual insurance companies supported by the association were reported to be in a prosperous condition. They are the Millers' National Insurance Company, of Chicago, and the Millers' Mutual Fire Insurance Company, of Alton. The treasury was reported full and the affairs of the association in good shape. The following officers were re-elected: President, E. Krieder, Jacksonville; vice-president, T. W. Brickey, Prairie du Rocher; secretary and treasurer, C. H. Seybt, Highland; assistant secretary, Henry Schureman, Caryle.

The Central Indiana Millers' Association held an adjourned meeting in Indianapolis early in December. A new constitution was adopted, which provides for voting by proxies and fines members for violations. This association will co-operate with those of other districts in reorganizing the State Association. The association conferred enlarge powers upon the executive committee. The next regular meeting will be held in March next. The officers elected are as follows: Nelson Bradley, president; M. L. Johnson, vice-president; E. E. Perry, secretary, and Geo. W. Kennedy, treasurer. An executive committee of five was chosen, consisting of the following: Chauncy Butler, Liberty; F. H. Holt, Carthage; A. G. Walton, Atlanta; Jno. A. Thompson, Edinburg, and P. C. McGannon, North Vernon.

At the Evansville meeting of the Southern Indiana Millers' Association, the following report was made of the condition of affairs in the district: Average production per acre 10½ bushels. Condition good, but cheaty. Yield per barrel as taken from farmer's wagon 4.70. Per cent. in farmers' hands 25. Price now paying 88 cents. Number of bushels in millers' hands 370,000. Flour on hand unsold 13,000 barrels. Percentage of wheat sowed compared with last year 7 per cent. more. None plowed under. Condition of growing crops, excellent. The next meeting will be held in Evansville on the third Tuesday of next March. The State Association meeting will be held in Evansville in May next. The members present were as follows: W. J. Hargrave, president, Elkhorn mill, Boonville; Adam Wallace, secretary, Wallace Milling Co., Dale; David Wallace, Harmon & Wallace, Owensville; W. S. Lane, Jordan & Lane, Deckers; A. Ramsbrook, Star Mill Co., Huntingburg; J. W. Raab, Eagle mills, Newburg; Alois Ziliack, Ziliack & Shafer Milling Co., Haubstadt; J. W. Lamey, Ziliack & Shafer Milling Co., Evansville; J. F. Katter, John, Boonville; Levi Iglehart, Iglehart Bros., Evansville; Add. Iglehart, Iglehart Bros., Evansville; A. Suhrheinrich, Star Mills, Evansville; of 100-light power. The plant is owned by the Canadian Pacific Railroad. Roller Mills, Evansville; Adam Miller, Patoka Mill Co., Patoka.



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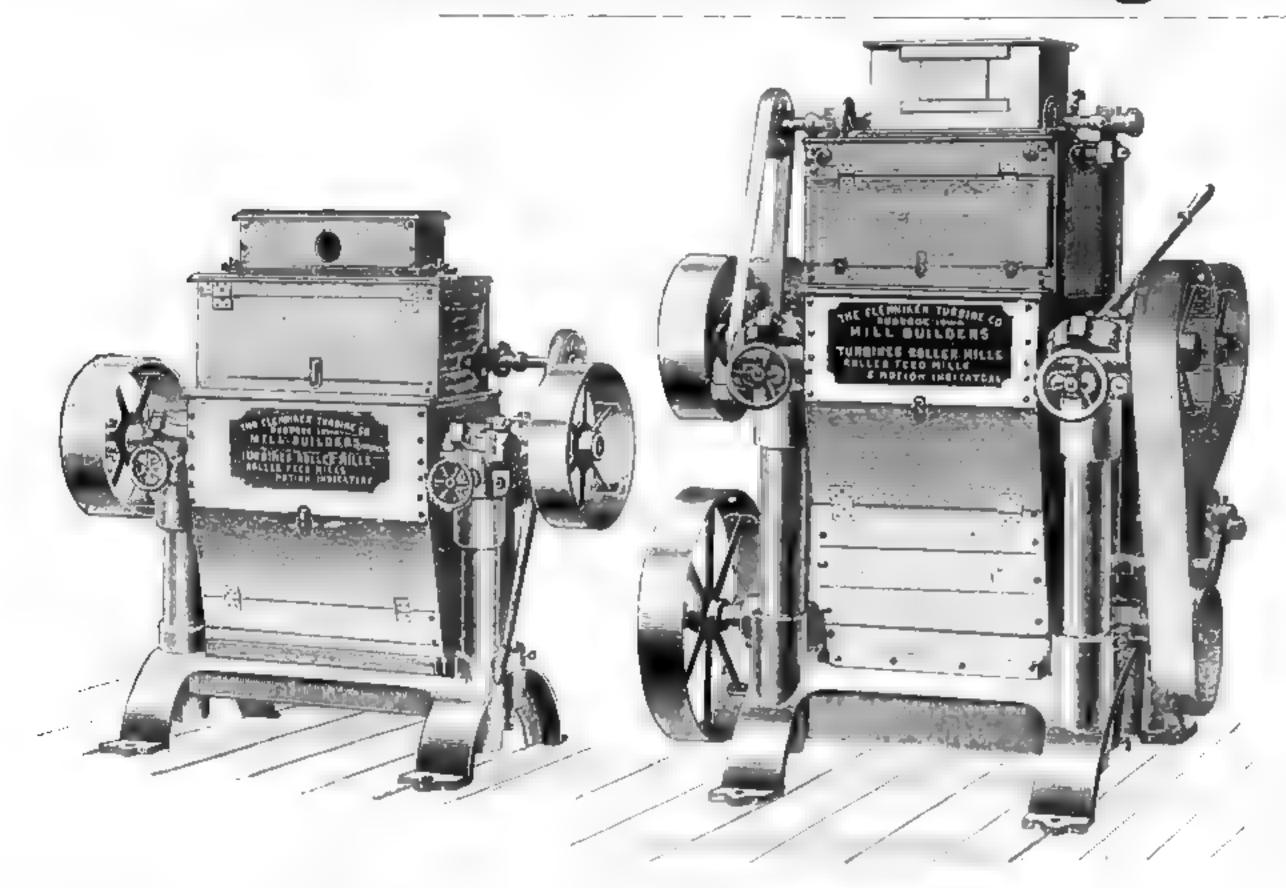
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Ye jolly millers, one and all, Who granulate with burrs,

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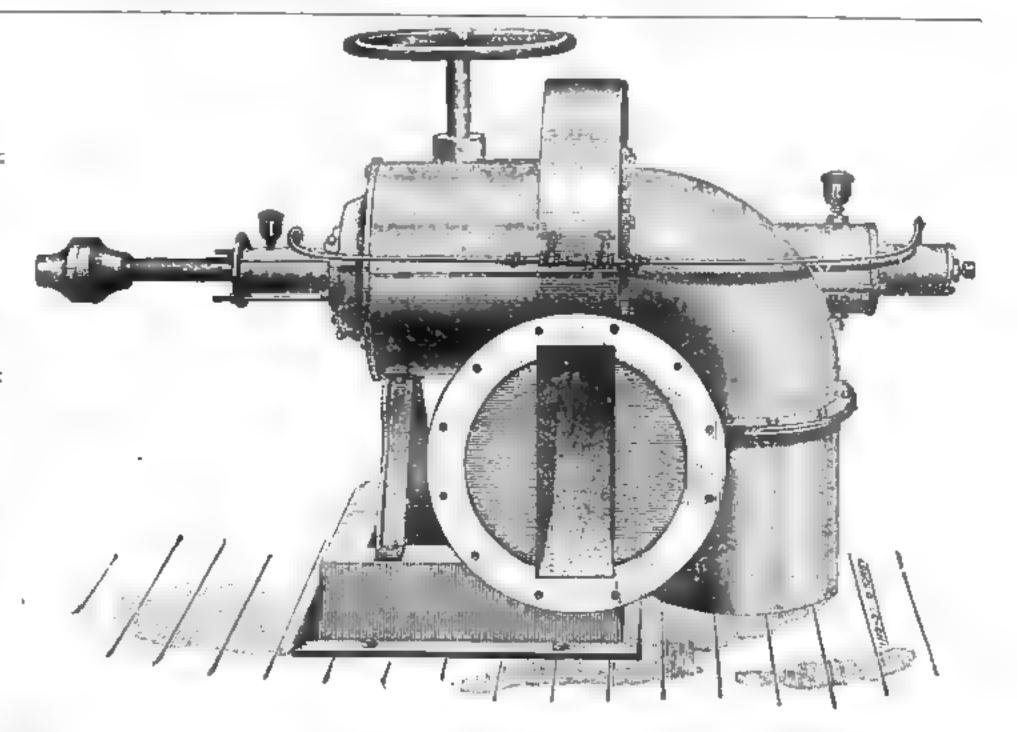
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DUBUQUE, - IOWA.

EUROPEAN ECHOES.

London reports indicate serious damage by drouth to the wheat crop in the Punjaub, India.

HOLLAND imported 17,675,000 bushels of wheat in the first nine months of 1890, against 14,230,000 bushels in 1889.

STOCKS of wheat in sight on December 1st, including affoat, stocks in Great Britain, in France and in Russian and German ports, aggregated 95,704,000 bushels, against 109,080,000 bushels at the same date in 1889, and 124,096,000 for the same time in 1888.

SPEAKING of the proposition of the Millers' National Association to visit England next summer, the London "Millers' Gazette" says: "We have no doubt that our Millers' Association would provide a fitting welcome for a representative body of American millers, who by actual contact with their business friends in this country would be able to better appreciate the difficulties and the evils now existing in the American export flour trade. Our millers, too, will have a lively recollection of the grand welcome which the party of British millers, under the presidency of Mr. S. Smith and Mr. T. W. Hibbard, met with at the hands of the American millers on the occasion of the visit to America about ten years ago, when Messrs. Throop and Thayer were the ciceroni of the party."

SAYS the London, England, "Millers' Gazette" of December 8th: The Board of Trade returns for November show that the imports of flour into the United Kingdom in that month were 1,092,756 hundredweights, against 1,776,248 hundredweights last year, and 1,114,177 hundredweights in 1888. Reduced to sacks of 280 pounds, the imports since Sept. 1 (three months) have been as follows: In 1890, 1,462,100 sacks; 1889, 1,740,500 sacks; 1888, 1,743,600 sacks. The sources of supply during these three months have been as follows:

| | 1890. Cwt. | 1889. Cwt. | 1885. Cwt. |
|----------------|---------------|---------------|---------------|
| Atlantic Ports | 2,043,913 | 2,815,515 | 2,638,114 |
| California | 263,565 | 237,474 | 255,085 |
| Austria | 340,236 | 675,844 | 429,380 |
| Germany | 368,932 | 287,793 | 424,832 |
| Canada | 436,155 | 232,849 | 457,194 |
| Sundries | 188,884 | 102,438 | 156,683 |
| | 3,656,665 | 4,351,913 | 4,261,288 |

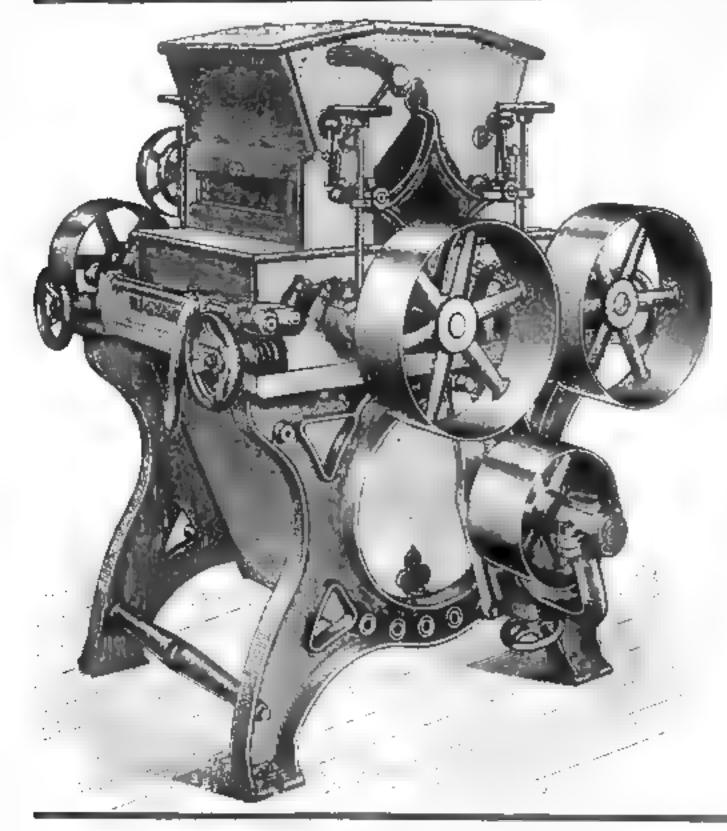
There is a large falling off, about 16 per cent., compared with last year; and although, judging from the great activity of the Minneapolis mills and the larger recent exports from the Atlantic ports, there will probably be some increase in our imports in the present month, it is more than likely that the season's imports of flour will be about 1,000,000 sacks less than last year. Meanwhile, the stocks in the United Kingdom ports of foreign flour are being reduced to very modest proportions, and will probably close the year with a total of only about 650,000 sacks in the principal ports, against 860,000 sacks last year, 758,000 sacks in 1888, and 827,000 sacks in 1887.

Says the London, England, "British Baker, Confectioner and Purveyor": The excellence of Hungarian flour is due to a combination of two favorable considerations, the fine quality of the wheat obtainable and the great care and ingenuity shown in the milling processes. Most of the recent improvements in milling wheat into superlatively choice flours have been first introduced in one or other of the large steam mills of Budapest. As an agricultural country, Hungary possesses vast natural resources. The soil is in most places exceedingly fertile. It does not get, because it does not need, the copious applications of manures our farmers in this country have to use. In many parts, indeed, the fruitful soil is six feet and more in depth. In a large part of the center of the country the rich loamy soil seems to have been nourished for ages by the mighty Danube river, the Nile of the east of Europe. The land is protected also in a great measure from the cold winds of the north by the extensive range of the Carpathian mountains; and as the ground slopes to the sun, it receives the full power of the vivifying solar rays. The Banat, the district surrounding Budapest, the capital, is the most fertile in all the country. The variety of wheat that is grown in this favored spot is small but heavy, and of great hardiness. The soil is so rich that two crops a year are commonly taken from it. The first crop is sown in March and is early ripe, the harvest usually being completed by the middle of June. They have thus a precedence in the European markets. The second crop is put into the ground about September, but the quality of the wheat is greatly inferior to the summer growth, and is mostly used for home consumption. Of course, as in other countries, seasons vary, and many districts have of late years been frequently devastated by floods. In 1889 the harvest was considered the poorest that had been for a decade.

Says the London, England, "Miller": The word Siberia awakens no pleasant associations in the European mind. It at once conjures up a vision of a long train of prisoners wending their dolorous way across bare plains under the lash of brutal Cossacks. Yet in some respects this popular estimate is altogether wrong. Geographers have long been aware that Siberia is a country of very varied resources. This is what that eminent explorer, Baron Nordenskiold, has to say on the subject: "Siberia surpasses the North American Continent as to the extent of cultivable soil. The Siberian forests are the largest in the world. Its mineral resources are immense, its climate, except the Tundra and the northernmost forest region, healthy, and as favorable for the culture of cereals as any part of Europe." The difficulty has hitherto been to approach this region of natural wealth, as plainly the tedious land journey to Siberia through Moscow is, in the absence of railways, of no use to the British merchant. An answer to this problem seems to have been found by the enterprise and energy of Captain Wiggins, a bold Yorkshireman, who after 16 years of practical voyaging, has shown that a comparatively easy and expeditious communication between this country and the heart of Siberia is in existence. It would appear that a vessel leaving the Port of London at the end of July may confidently reckon on discharging a cargo at Karaoul, a port nearly 200 miles up the mouth of the Yenisei, the great waterway of Siberia, and on being back in London without any hindrance from ice floes in the Arctic Sea, which it will necessarily traverse, by the close of September. Captain Wiggins has made since 1874 fifteen voyages into these parts, but only once has he encountered any ice in his course, and that was when his departure had been delayed too long. The River Yenisei, which flows into the Arctic Sea, is navigable for about 2,000 miles, that is, nearly as far as the frontiers of China, and is provided with many affluents, several of which are also navigable. Moreover, another great river of Siberia, the Obi, which empties itself not far from the mouth of the Yenisei, is likewise believed to be navigable for a considerable distance. With but one transhipment goods can, it is affirmed, be cheaply and quickly forwarded from England to the heart of Central Siberia in something like six weeks. There should be every prospect of a sensible current of trade setting in between the two lands, and if such should be the case, there would be every likelihood of our drawing some supplies of wheat from this great and fertile region. The wheat of Siberia has a good name in Russia, and some of it is said to have a likeness to the wheat of the Canadian Northwest. Before very long our millers may be in a position to judge samples of Siberian wheat with their own eyes.

COTEMPORARY COMMENT.

The fall plowing in the Dakotas was more extensive than for several years past, and the talk of a reduced wheat acreage next spring is apparently groundless. Doubtless a good many claims have been abandoned, but they were not improved to any extent and contributed nothing to the general crops of the country.—Chicago "Daily Business."



Munson Bros., Utica, N. Y.

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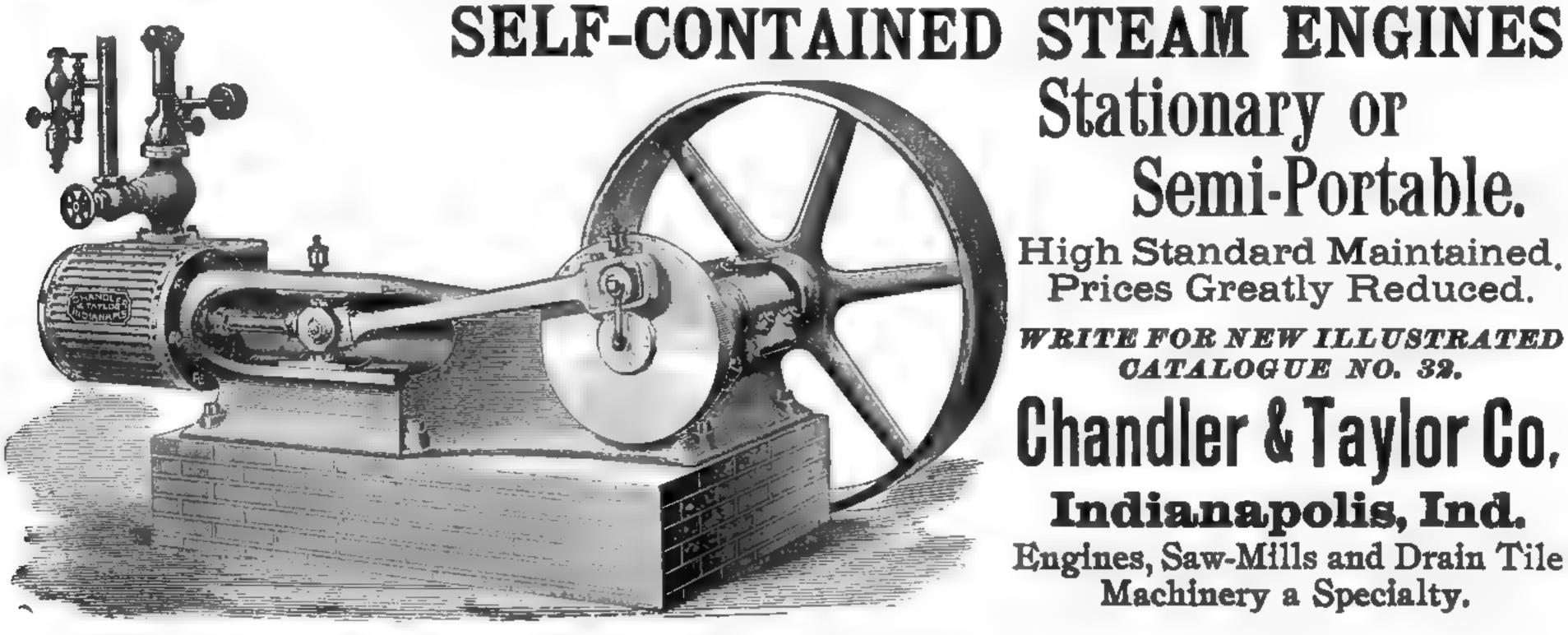


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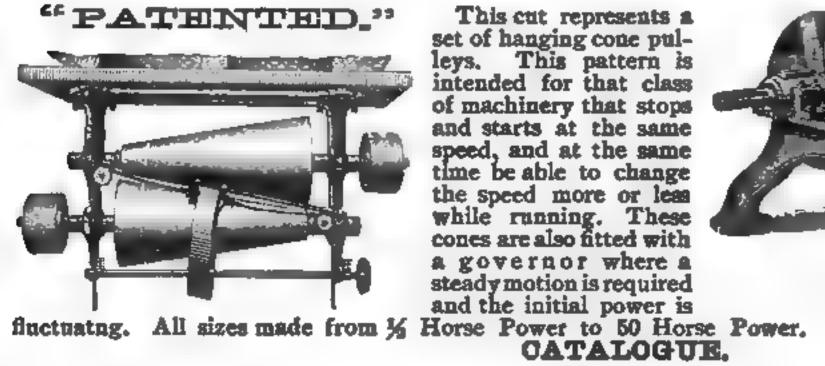
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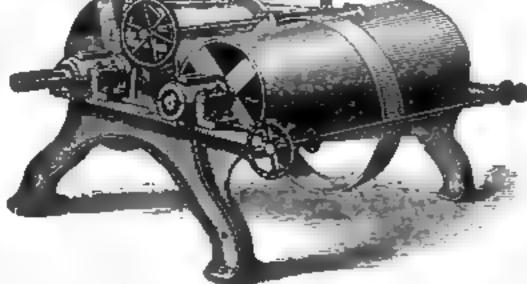
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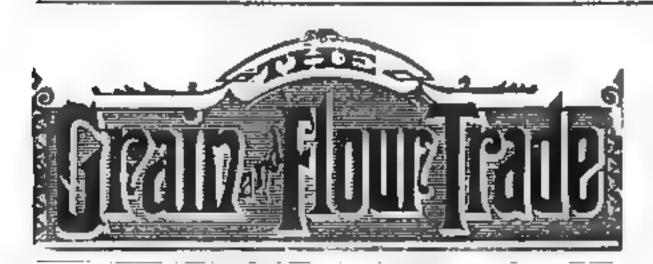


This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with



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OFFICE OF THE MILLING WORLD, BUFFALO, N. Y., Dec. 27, 1890.

Friday of last week was a day of duller and stronger cereal markets, on stronger cables and better western markets. In New York December wheat closed at \$1.05%, and March at \$1.07%, with receipts at Atlantic ports 34,-095, exports 139,585, and options 1,168,000 bushels. New York dealers anticipated a better export demand, as European cables reported low stocks and improved prices. December corn closed at 62½c., with receipts 111,164, exports 106,939, and options 128,000 bushels. December oats closed at 49% c., with receipts 75,745, and exports 10,695 bushels. Wheat flour was generally stronger, especially on spring bakers' extras in sacks for export, which were wanted and 10c. higher with higher wheat in the Northwest. Receipts included 7,423 sacks and 21,107 barrels, and exports 33,552 sacks and 25,100 barrels. English inquiries for export The minor lines were were more numerous. quiet and featureless.

Saturday brought dull and featureless markets generally. December wheat closed at \$1.05\%, with receipts 14,165, exports 71,294, and options 834,000 bushels. The improved financial reports prevented any weakening in prices. December corn closed at 62 4c., with receipts 150,829, exports 51,705, and options only 96,000 bushels. December oats closed at 49½c., with receipts 41,549, exports 4,943, and options 75,000 bushels. Wheat flour was steadily held at the advance of Friday, but business was small in volume. European shippers had orders for spring extras and superfines at stronger prices. Receipts were 6,114 sacks and 3,249 barrels, and exports 51,234 sacks and 7,-019 barrels. The minor lines were quiet.

Monday opened with an increased movement in all lines of grains all over the West, and tiredout longs broke the markets by dumping their holdings freely. December wheat closed at $$1.04\frac{1}{2}$, with receipts 27,968, exports 11,367, and options 1,016,000 bushels. December corn closed at 60 1/2c., with receipts 142,166, exports 144,703, and options 1,728,000 bushels. December oats closed at 49½c., with receipts 83,899, exports 19,660, and options 238,000 bushels. Wheat flour was dull and uncertain on the 112cent drop in wheat in New York. No particular attempt to sell at concessions were reported. Receipts were 9,312 sacks and 29,735 barrels, and exports 40,802 sacks and 14,717 barrels. Sales were made at the following prices: Spring bakers' at \$4 in jute bags, and extra No. 2 winter at \$3.60 in sacks; choice patent spring sold at \$5.35; good clear winter \$4.75; city mills at \$5.25; winter fine in barrels at \$3.25 and superfine winter at \$3.25 in sacks; spring at \$2.35 for ungraded; no grade \$3.50; West India grades at \$5; patent springs \$5.35 for choice; city mills quoted \$5.10 by some mills for lines, at \$5,25 for lots by others. The minor lines were generally featureless and unchanged. The visible supply in the United States and Canada was:

| F 1 - 5 | The state of the s | | |
|---------|--|------------|------------|
| | 1890. | 1889, | 1888. |
| | Dec. 20. | Dec. 21, | Dec. 22. |
| Wheat | 25,364,768 | 34,274,799 | 37,213,583 |
| Corn | 2,117,392 | 5,858,957 | 6,327,430 |
| Oats | 3,454,452 | 4,853,277 | 8,010,025 |
| Rye | 479,721 | 1,251,630 | 1,613,641 |
| Barley | 4,238,028 | 2,519,933 | 2,424,498 |

Tuesday brought heavy, duller, irregular cereal markets, on lower silver and sterling exchange, on easir cables, on larger interior receipts and on realizing by longs. December wheat closed at \$1.045%, with receipts 106,018, exports 2,777, and options 1,440,000 bushels. Hessian-fly damage reports continued numerous. December corn closed at 60c., with receipts 134,103, exports 55,686, and options small in

amount. January oats ruled at 48½c., with receipts 112,031 and exports 7,187 bushels. Wheat flour was dull, easy and tended to lower prices. Concessions of 10c. were reported on some lines. Receipts were 12,268 sacks and 22,728 barrels and exports 10,938 sacks and 11,724 barrels. The minor lines were generally featureless.

The following shows the amount of wheat and flour, together with the amount of corn, on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

| 1890. | 1890. | 1889. |
|-----------|--------------------------------|---------------------------------------|
| Dec. 23, | Dec. 16. | Dec. 24, |
| 2,282,000 | 2,308,000 | 2,175,000 |
| 509,000 | 519,000 | 375,000 |
| | 1890. Dec. 23, 2,282,000 | Dec. 23. Dec. 16. 2,282,000 2,308,000 |

The following shows the amount of wheat and corn on passage to the Continent for the past week, the previous week, and for the same week last year:

| Work labe y car ; | 1890. | 1890. | 1889. |
|-------------------|------------|----------|---------|
| | Dec. 23. | Dec. 16. | Dec. 24 |
| Wheat, qrs | 786,000 | 747,000 | 641,00 |
| Corn, qrs | 122,000 | 121,000 | 170,00 |
| | | | Qrs. |
| India wheat to U | nited King | gdom | 50,00 |
| India wheat to C | ontinent | | 22,50 |

The imports into the United Kingdom for the past week and the previous week and for same week last year:

| | 1890. | 1890. | 1889. |
|------------|----------|----------|-----------|
| | Dec. 23. | Dec. 16. | Dec. 23 |
| Wheat, qrs | 225,000 | 263,000 | 261,000 |
| Corn, qrs | 115,000 | 31,000 | 89,000 |
| Flour bbls | 170,000 | 101,000 | - 135,000 |

Wednesday was a day of dull, but steady, markets, on covering for holidays. There were no marked changes or features in any line. December wheat opened at \$1.04%, January at \$1.04%, February at \$1.04%, March at \$1.051/4, and May at \$1.041/4. Receipts were 60,248, exports 46,783, and options 960,000 bushels. The strength in wheat was on Liverpool reports. Pacific coast buyers were operating in Chicago. January corn closed at 58%c., May at 581/sc., and July at 58%c. Receipts were 139,186, exports 39,020, and options 384,-000 bushels. January oats closed at 48%c. and May at 48%c. Receipts were 26,488, exports 7,674, and options 75,000 bushels. Buckwheat grain was nominally 60c. Rye was wholly nominal and unchanged, except for car lots State on track at 78c. Quotations: State 78@ 80c.; Western 77@80c.; 73@74c. for Canada in full loads affoat, with car lots 2@3c. less. Barley was firmly held on expectation of better after-New-Year's demand, till when buyers hold off. Quotations: No. 1 Canada 95c. nominal; No. 2 do. 87c. nominal; extra No. 2 do. 90c. asked; No.2 Milwaukee, 80@82c.; ungraded Western, 75@86c.; State nominal. Malt was still unquotable and unsalable, but unchanged. Millfeed was dull and steady at the following quotations: \$1.05 @ 1.10 in lines and job lots for 40, 60 and 80 lb; \$1.20 for 100-lbs and sharps, \$1.05@1.10 for rye. Wheat flour was stagnant. Patent springs in round lots brought \$5.10 in barrels, and choice to fancy brands went at \$5.25@5.35. No. 1 extra winters brought \$4, No. 2 winters \$3.60, both in sacks. City mills were \$5.10@5.25, and winter patents \$5.15. Receipts included 10,212 sacks and 21,-354 barrels, and exports 6,967 sacks and 2,341 barrels. Buckwheat flour was dull at \$2,20@ 2.35. Rye flour was steady, but dull, at \$4.15 @4.40 for ordinary to choice brands. Corn products were dull at \$1.15@1.18 for coarse, \$1.28 @1.30 for fine yellow, and \$1.30@1.32 for fine white. The business for the day closed virtually at I p.m., with the usual skylarking and throwing of samples of grain and flour at those who remained on the floor. The grain-throwers began hurling bags first, and they were followed by the flour brigade, which soon cleared the floor, which the combatants bad to themselves and held undisputed for nearly an hour, after which some of the members ventured back on

the floor to complete the little business doing.

Thursday was a holiday and the Exchange was as silent as though all the bears and bulls

were dead. They were, however, only engaged in their regular annual raid on Turkey.

Friday was a day of dull and unchanged markets generally. December wheat closed at \$1.04%, January at \$1.03%, February at \$1.041%, March at \$1.05\%, and May at \$1.04\%. Receipts were 10,800, and options 676,000 bushels. December corn closed at 58 1/4 c., with receipts 159,000, exports 3,624, spot sales 34,000 and options 496,000 bushels. January oats closed at 48c., with receipts 89,000 bushels. Wheat flour was dull and unchanged. Quotations were: Low extras \$3.40@3.90; city mills \$5.10@5.35: city mills patents \$5.10@5.85; winter wheat low grades \$3.40@3 90; fair to fancy \$3.90@5; patents \$4.40@5.40; Minnesota clear \$4.10@4.85; straight \$4.35@5.10; Minnesota straights patent, \$4.60@5.40; rye mixtures \$4@4.50; superfine \$3@3.75. Receipts were 32,567 and sales 13,600 packages. The minor lines were featureless.

BUFFALO MARKETS.

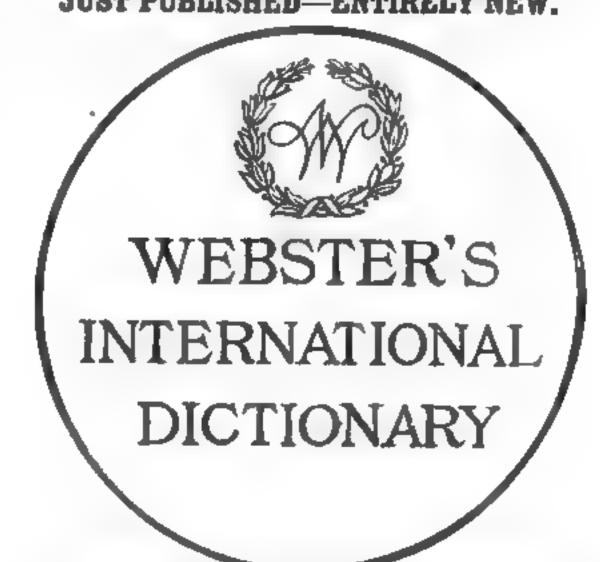
Buffalo, N.Y., December 27, 1890. Trade is generally slow, and a regular holiday dullness rules WHEAT sales are reported of 600 bushels No. 1 hard at \$1.061/2; 600 bu No. 1 Northean at \$1.001/2 600 bu do. at \$1.01; 1,200 bu Minnesoto do on track at \$1.011/4; and 1,200 bu No. 1 Oregon white at 941/4c. CORN-Market quiet and No. 2 yellow in store was quoted at 58c. No. 8 yellow was sold and closed at 541/2 @541, c. 4 car loads selling at 55c.; No. 2 corn closed at 57c. in store, and No. 8 corn at 58 1/2054 1/2c. OATS-No. 2 white closed at 47@471/2c.; No 8 white at 46@ 461/2c. and No. 1 mixed 46@461/3c. Sales at these figures were reported. BARLEY-Choice Michigan sells at 77@79c., fair to good at 72@76c. No. 2 Western at 75@76c. and No. 8 do at 69@72c. No Canada barley is offered to a quotable extent RYE-No. 2, is quotable at 76c. OATMEAL-Akron, \$6.95; Western, \$6 70 per bbl; rolled oats, in cases, 72 lbs, \$3.85. CORNMEAL—Coarse, \$1.15@1.20; fine, \$1.20@ 1.25; granulated \$1.75 per cwt. MILL-FEED-Cityground coarse winter, \$19.00@20.00 per ton; fine do, \$19.50; finished winter middlings \$22.00@28.00; coarse spring do, \$22.00.

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| FLOOR . | MARKEI. |
|--|--|
| Spring Wheat, | Winter Wheat. |
| Patents \$6.25@6.50 S't Bakers' @5.75 Bakers' cl'r @5.25 B. Rye mixt @4.75 Low Grades @3 50 Rye flour 3 75@4.00 | Patents \$6.25@6.50 S't roller 5.25@5.50 Amber 5 00@5.25 Crck'r flour 5.00@5 25 Low grades 8.50@3.75 Graham 4.75@5.00 |
| Buckwheat flour, \$2.7 Retail prices 50c. about | 5 per 100 pounds. |
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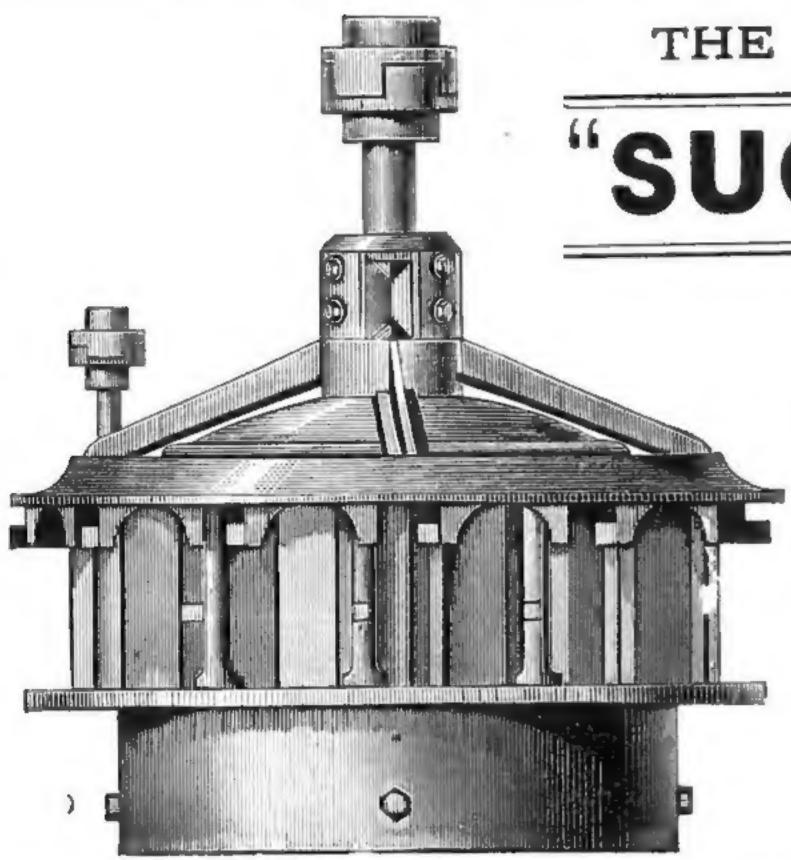
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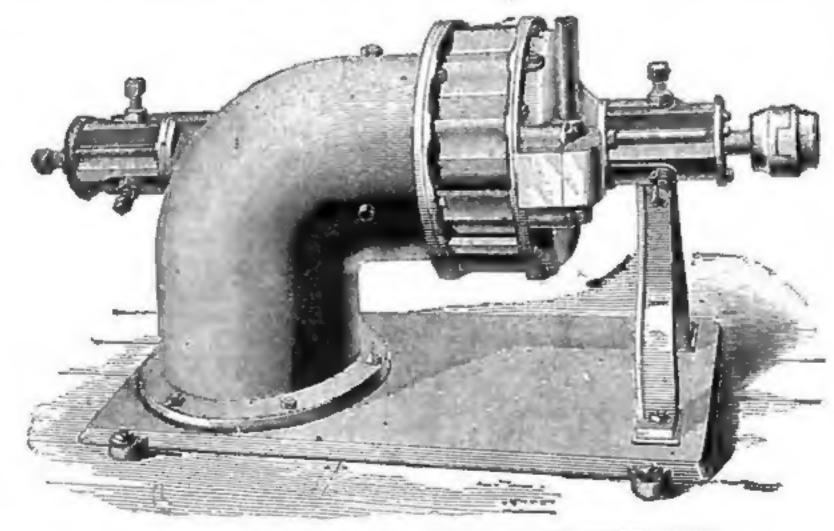
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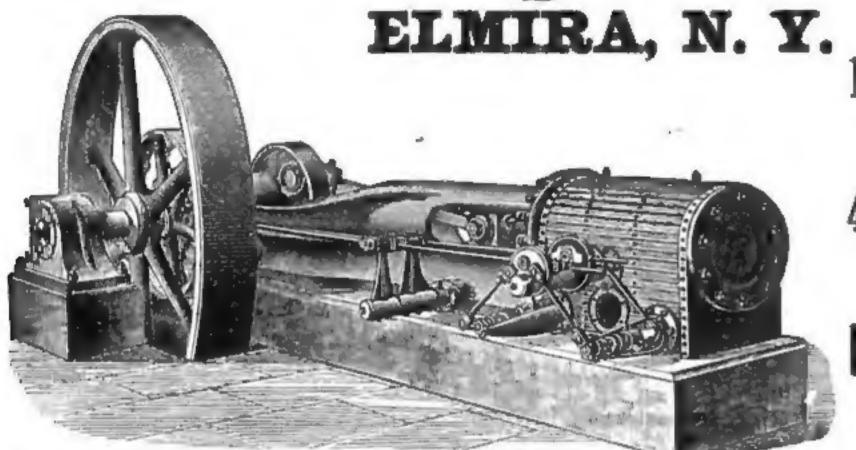
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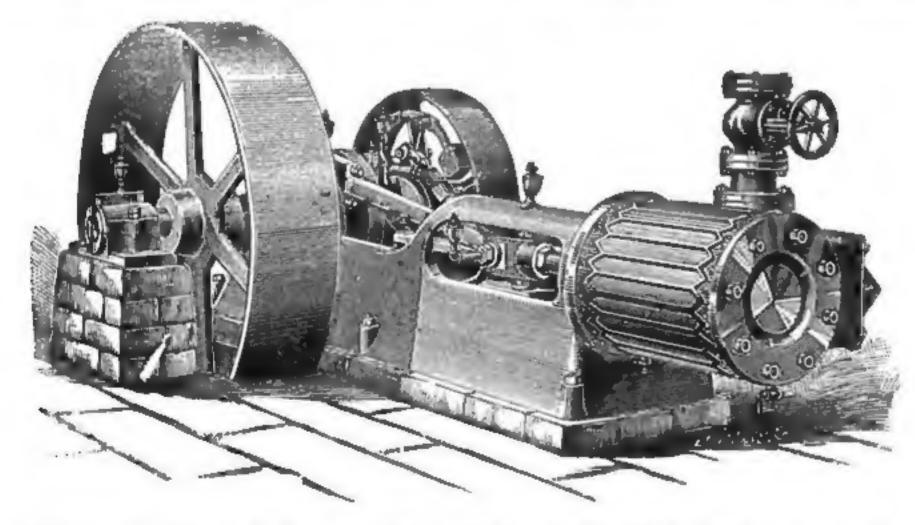
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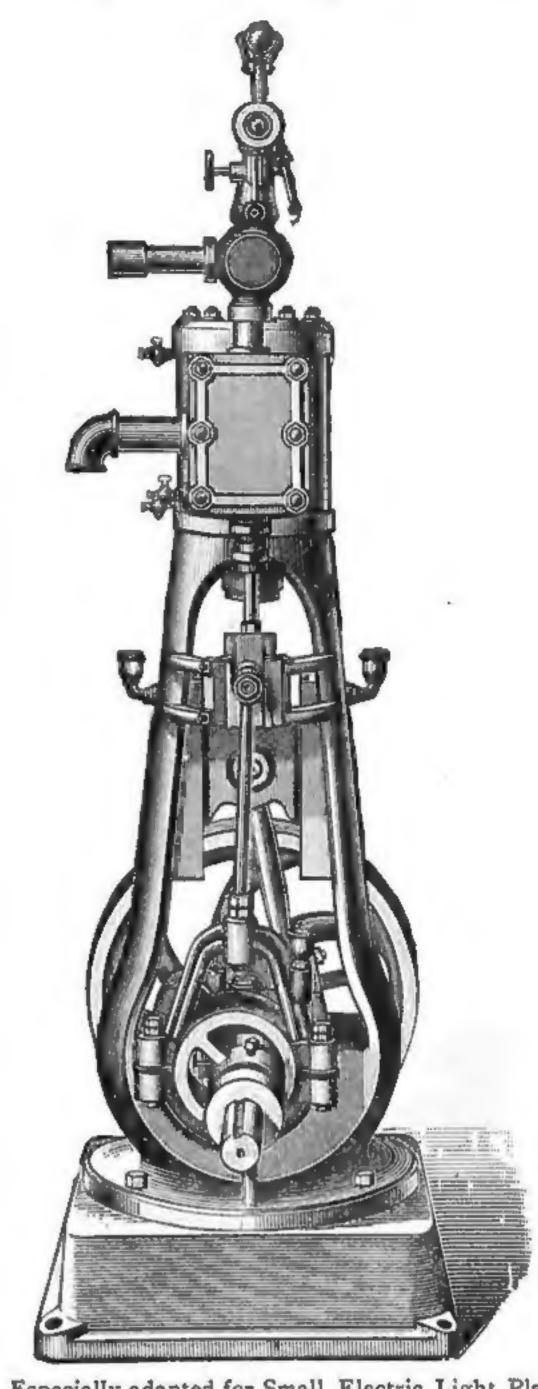
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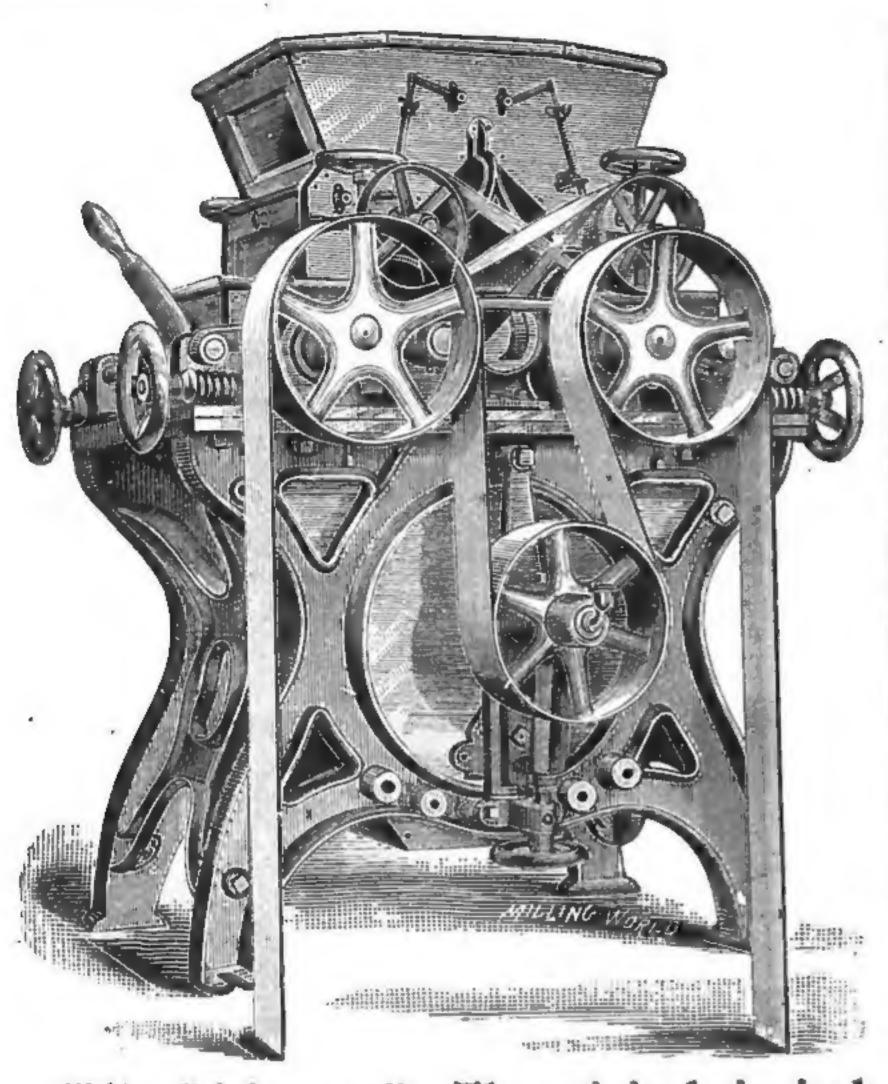
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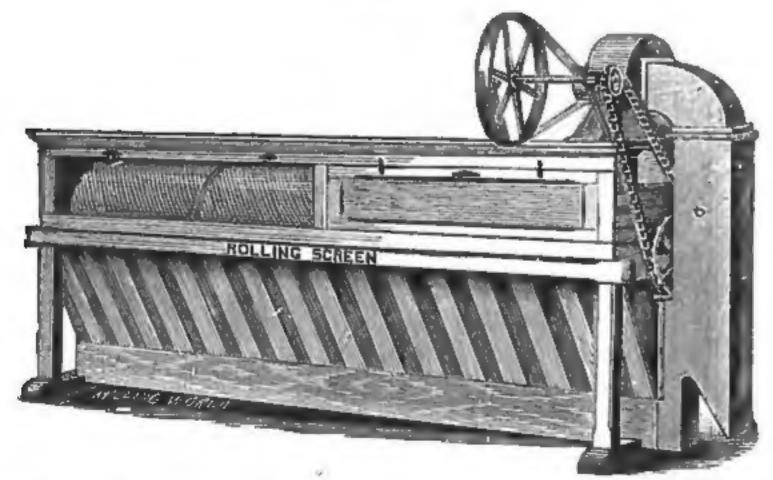
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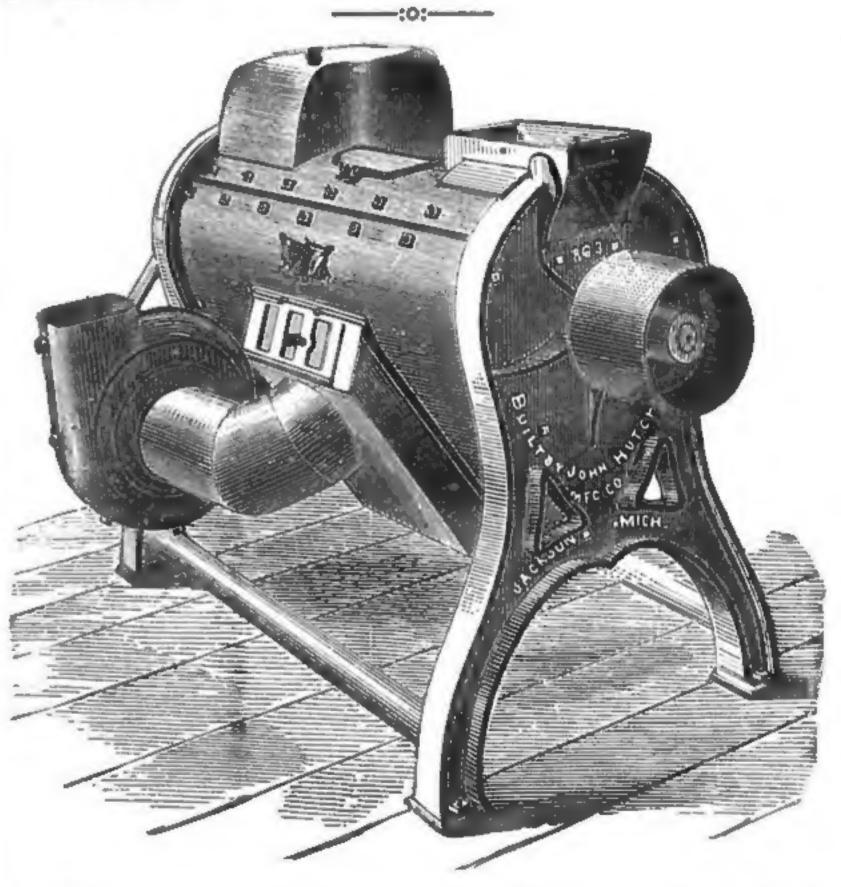
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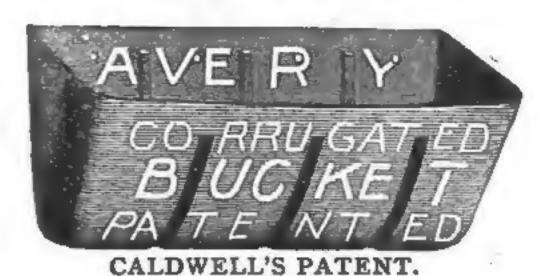
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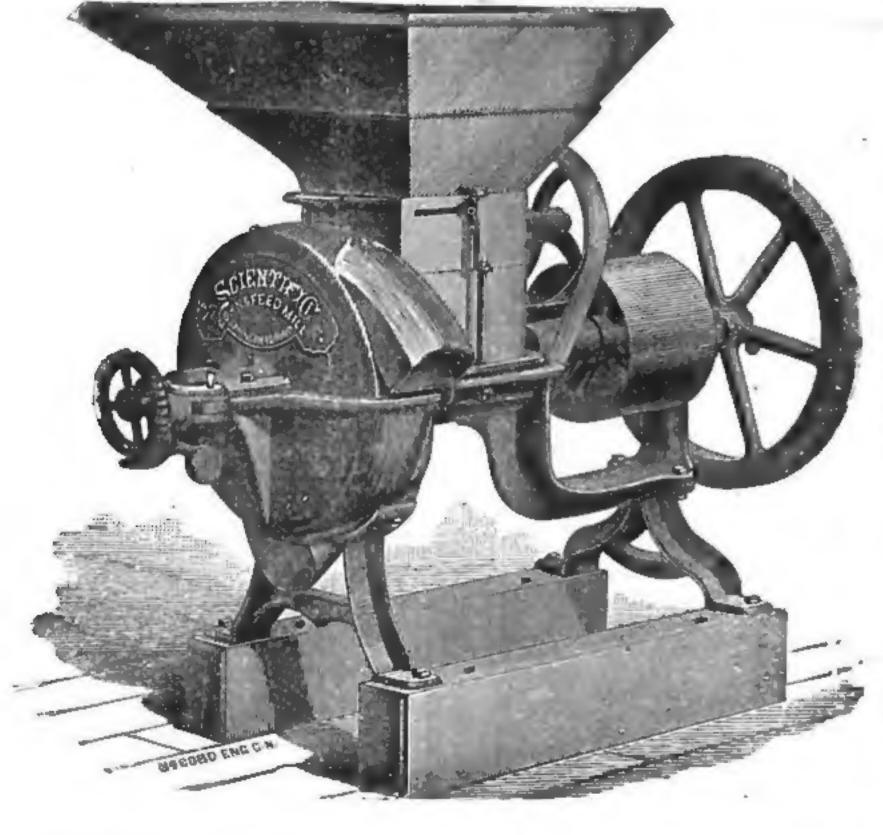
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